ECM user manual
Emeris Communication Manager

Valid for software version 3.41

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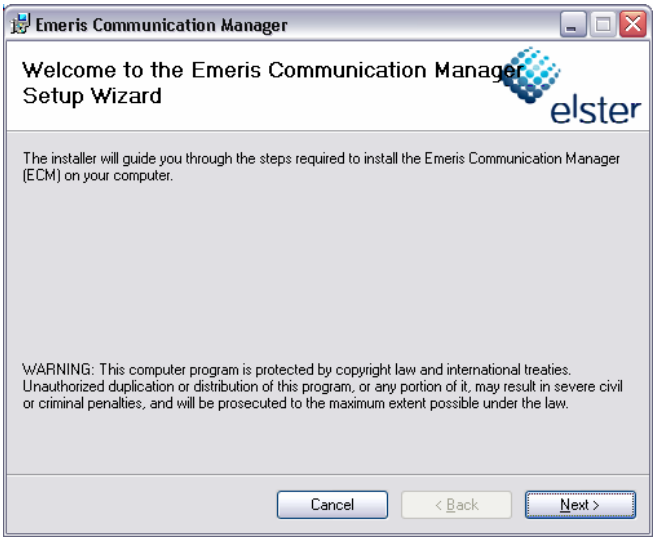
1 Introduction

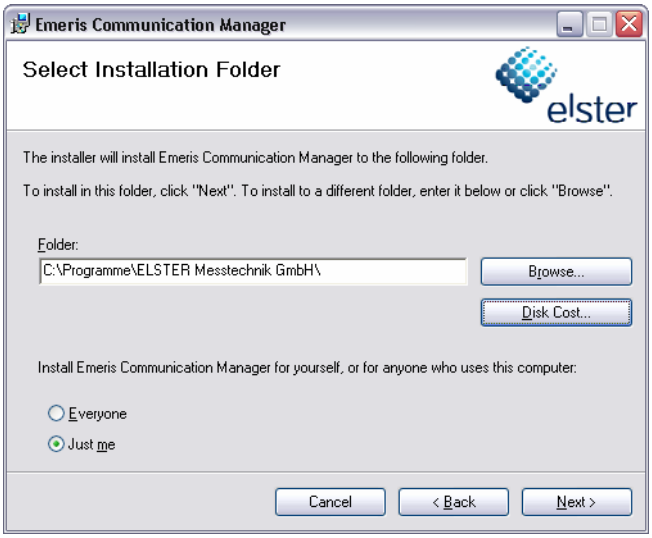
The following manual describes how to install and use the Emeris Communication Manager (ECM) Software in the version 3.22c.
Basically the software is divided in the configuration module C and the database module D.
The ECM data can also be transferred to a PDA via Module M and to the Elster Route Manager (ERM). The next chapters explain the most important features, which are relevant for the parameterisation, the read out and the transfer of the meter data.

2 Installation

Put the installation CD in the CD-drive and open the folder ECM. Start the “Setup.exe” file.
Now you can see the following picture on your screen:

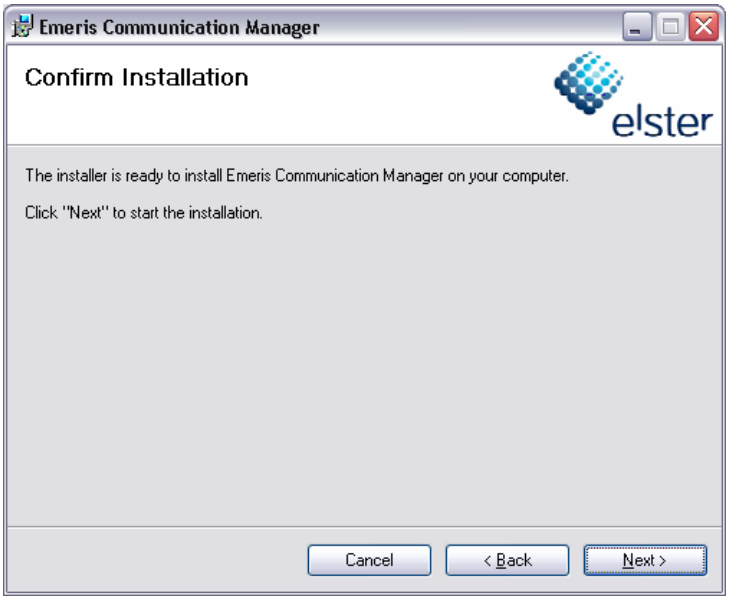

Emeris Communication Manager
Welcome to the Emeris Communication Manager Setup Wizard
elster
The installer will guide you through the steps required to install the Emeris Communication Manager (ECM) on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

Choose NEXT.

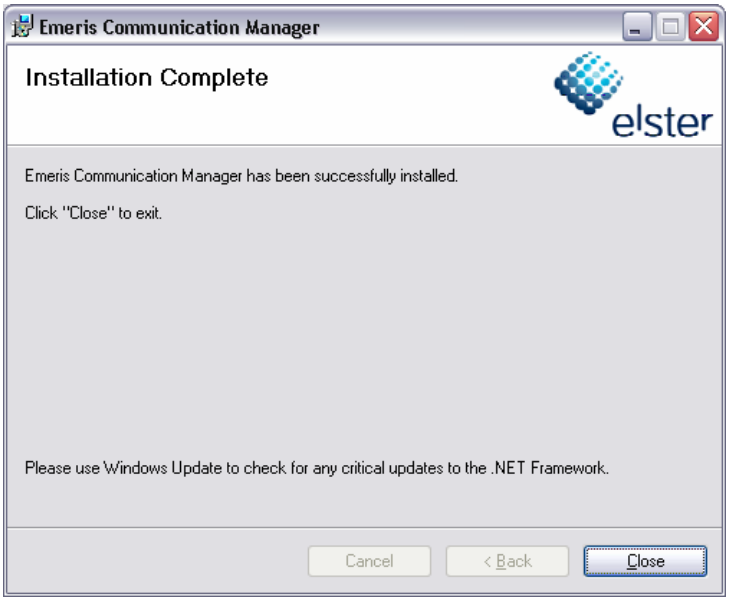

Emeris Communication Manager
Select Installation Folder
elster
The installer will install Emeris Communication Manager to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Programme\ELSTER Messtechnik GmbH\
Browse...
Disk Cost...
Install Emeris Communication Manager for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

Select the path where you want to install the ECM Software.

Set the radio button on “Just me” if you want to be the only user who is able to run the program. If you choose “Everyone”, all Users on this PC can use the program.
Afterwards click NEXT.


Emeris Communication Manager
Confirm Installation
elster
The installer is ready to install Emeris Communication Manager on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >

You confirmed all necessary data. To start the installation click NEXT.



After finishing the installation you see the window INSTALLATION COMPLETE.
The installation was successful and a shortcut was created at your desktop.
Start the program with a double click on the ECM short cut.

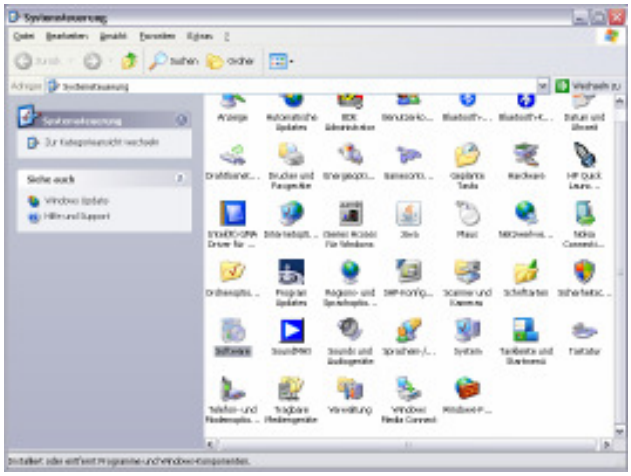
Installation under Windows Vista:

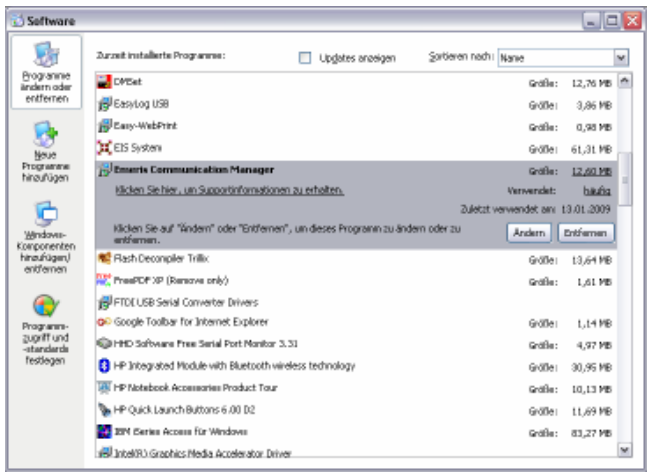
If you use windows vista as operating system on your PC, there might be some problems with the user rights.
After the installation of the Emeris Communication Manager (ECM) on a Windows Vista PC the following steps has to be done manually:

- Launch C:\Windows\RegEdit.exe
- Create "*HKey_Local_Machine* \ *Software* \ *ELSTER Messtechnik GmbH*"
- Right click on "*ELSTER Messtechnik GmbH*" and select Rights / User / full access
- Create "*HKey_Local_Machine* \ *Software* \ *MTec*"
- Right click on "MTec" and select Rights / User / full access
- Launch "Windows Explorer" and make a right click on C:\Program files\Emeris Communication Manager". Select "Properties" and then "Security / User / Advanced"
- Click on "User / Edit"
- In the next window click again on "User / Edit"
- Select "Full access" and close the window with "OK"
- Close the other 3 open windows also with "OK"

2.1 Install an update

To install a new version of the ECM software be sure that you de-install the old version first. If you de-install your old version all of your custom data, like data base entries and meter readings, is still stored on your PC.
To delete the software follow these steps:
Open the menu “Software” by clicking “Start” → “Settings” → “control panel”
Double-click the folder “Software” and choose the entry “Emeris Communication Manager”

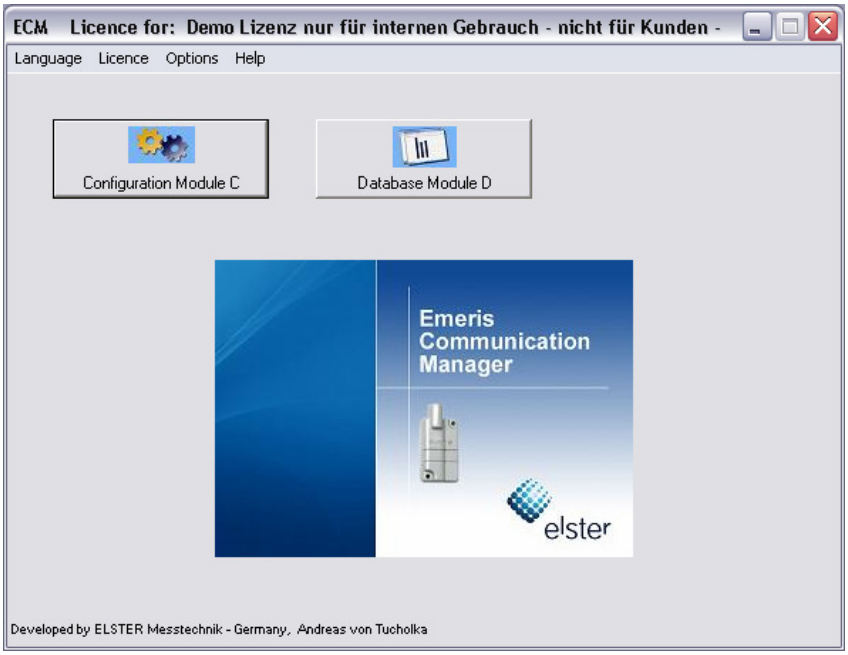




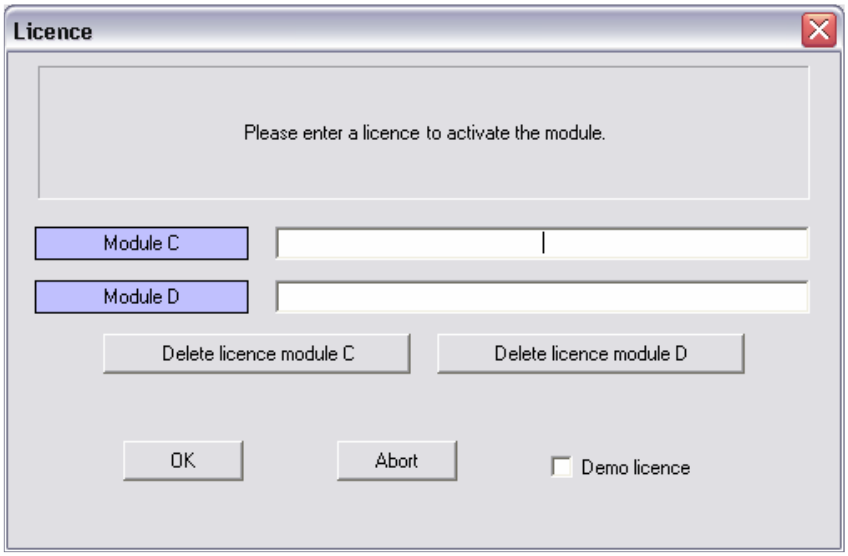
Now click the button „Delete“ and follow the orders on your screen
To install the new ECM version follow the descriptions in Point 2 in this manual.

3 Program

After the double click on the ECM short cut you can see the following image on your screen:


ECM Licence for: Demo Lizenz nur für internen Gebrauch - nicht für Kunden -
Language Licence Options Help
Configuration Module C
Database Module D
Emeris
Communication
Manager
elster
Developed by ELSTER Messtechnik - Germany, Andreas von Tucholka

Click on the tab LICENCE and then SET LICENCE.

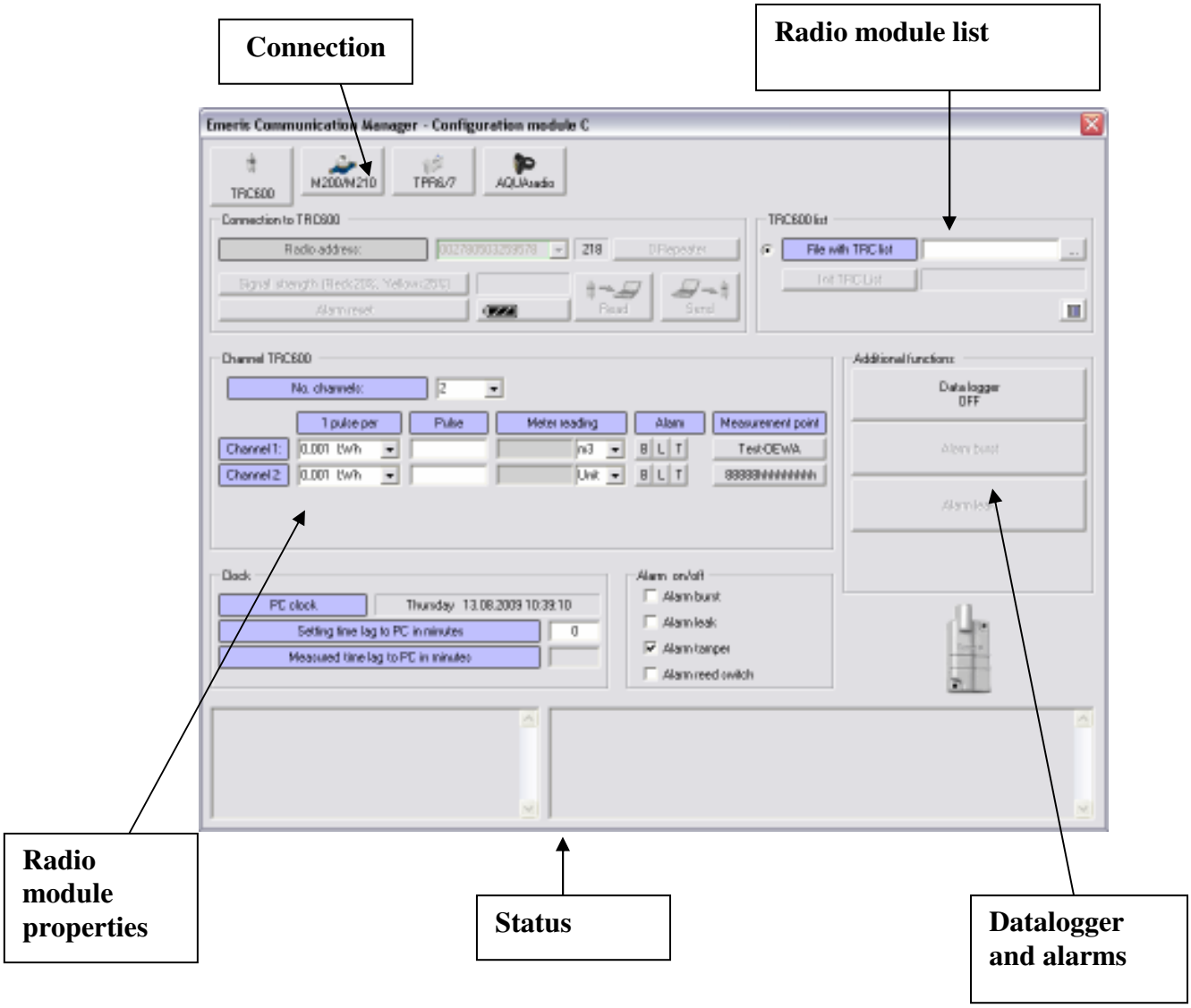


To use the software please enter your registration code for module C and / or module D.
To use the demo version check the Demo License box and press OK.
Now you can use the software.

4 Use of the modules

4.1 Module C

To start Module C, press the „Configuration Module C" button.
You use Module C to parameterise the TRC 600 radio module. First connect the TRC 604 radio modem and choose the related COM Port via the selection box in the upper left of Module C.
To communicate with a radio module enter the 15-digit radio address in the available address field. The last 3-digits on the radio module are a checksum, to control if the address is correct.
It's also possible to load a TRC list file. First activate the radio button "File with TRC list" and choose the path of the list file. Then, the address field just contains the radio modules from the list file.
When you chose the address of a radio module, click on the button "Read". The radio module data is now available.
The following image shows the form of Module C:



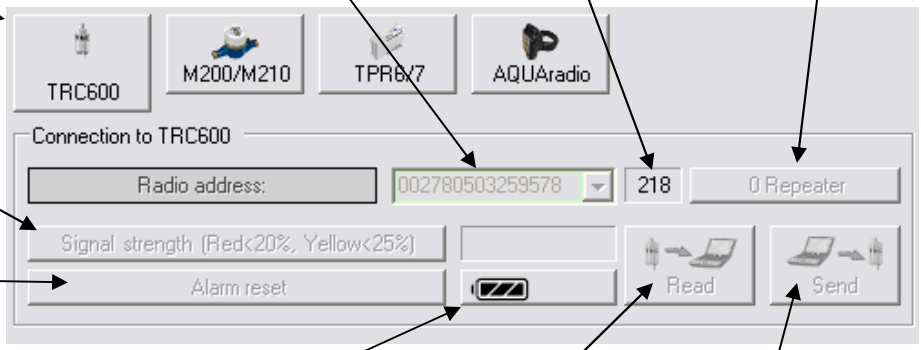
4.1.1 Connection

Select your corresponding radio module or meter type

Choose between the different radio module addresses

With the 3-digit checksum you can verify if the 15-digit radio address was

Here you can choose maximum 3 repeaters, to improve the read-out distance (s. figure „Repeater“)



„Click“ and the actual value will be updated

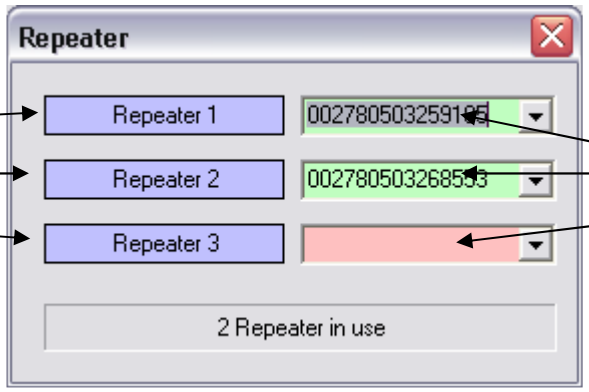
„Click“ and all saved alarms will be set back

Shows actual battery status

„Click“ and the selected radio module is read out

„Click“ and the changed parameters are transmitted into the selected radio module

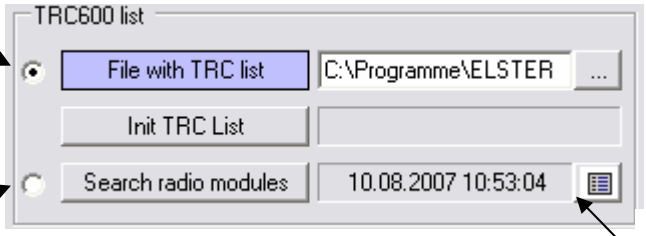
The communication distance of a radio module can be improved with up to 3 repeaters.
First repeater address is the repeater that is the closest to the read



Repeater is active, as soon as an address is input. In the left figure 2 repeaters are activated.

4.1.2 Radio module search and list

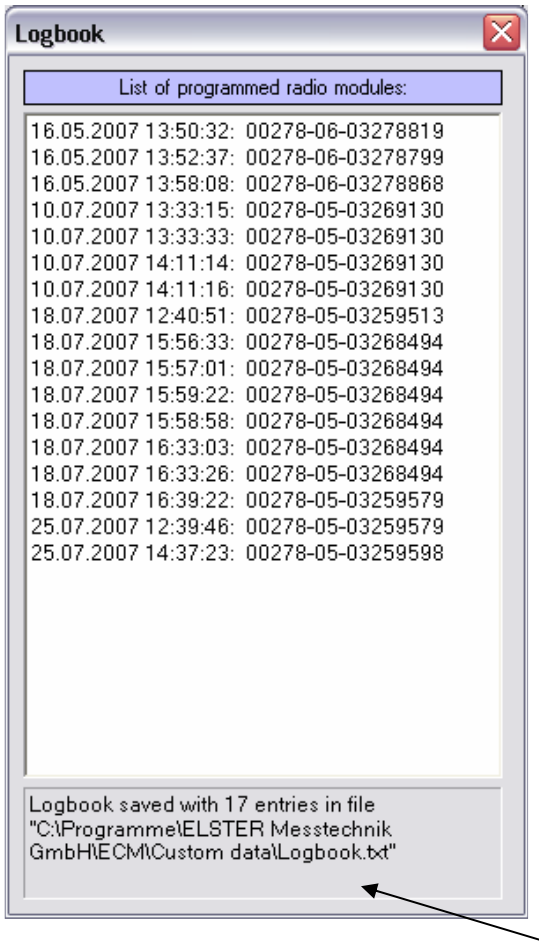
You can load a radio module list (*.txt) that contains your radio module addresses.



By „click“ all radio modules in range are searched. After the search you can search them via the radio module address field.

By „click“ you see a logbook (s. figure „Logbook“) with information about the time and date when the parameters of a radio module were changed

List contains time stamps and radio addresses. Informs when and which radio module was parameterised or settings were.



File path where the log data is saved on the PC

4.1.3 Radio module properties

Number of pulses. Can be parameterised

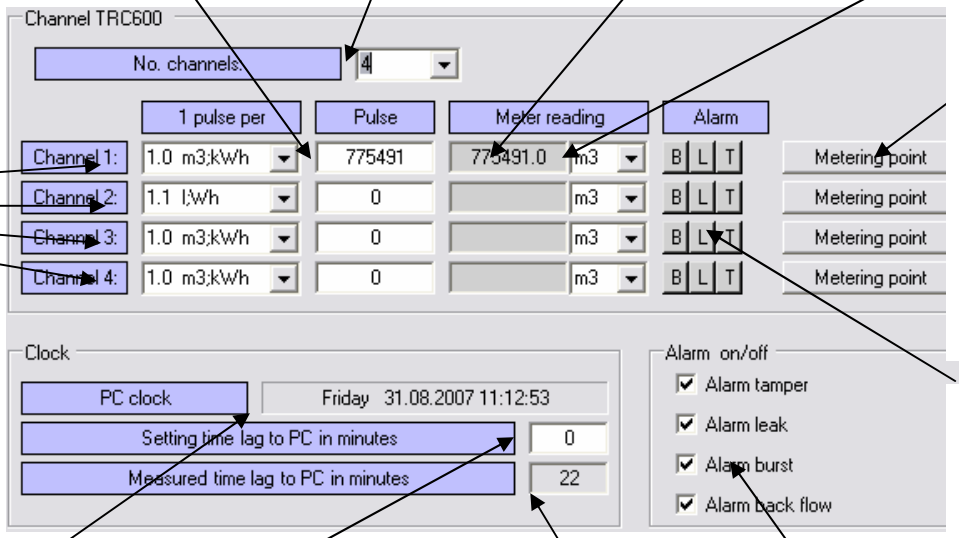
Number of channels the radio module got. Attention: Don't set a 2-channel radio module to 3 or 4 channel mode!

Current meter reading. When you install the radio module adopt the meter reading to the radio module

The unit of the meter reading

Starts „Database Module D" and shows the corresponding entry to the radio module and the channel. If no entry is available a new one is created.

Setting of the pulse value of each channel



Information about the status of the alarm functions of each channel.
B: Burst alarm
L: Leak alarm

Time and date value from the intern PC-clock

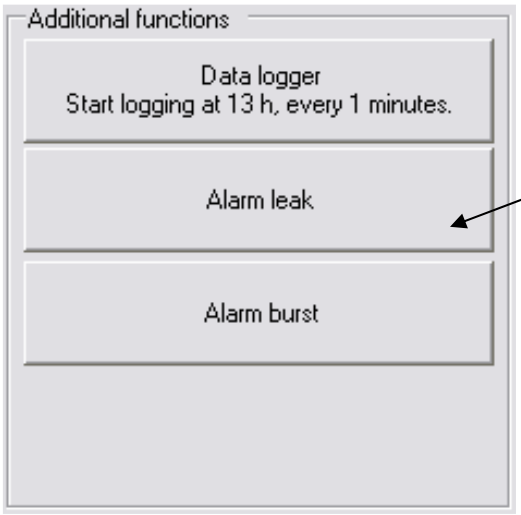
Time deviation of the radio module to the PC-clock can be set

Actual time deviation of the radio module (compared to the PC-clock)

Activates or deactivates the alarm functions. The parameterisation happens in „Additional

4.1.4 Datalogger and alarms

Data logger function (s. fig. DataLog)

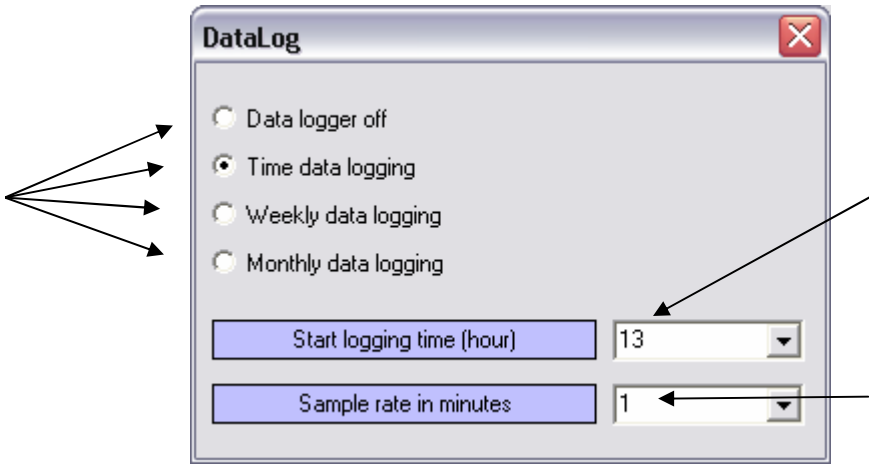


Leak alarm function (s. fig. Leak alarm)

Burst alarm function (s. fig. Burst alarm)

4.1.5 Data logger

Choose if and in what time interval the data logger stores the meter readings.
Attention:
Radio module can store up to 12 meter readings for each channel. If you use just one channel, 24 meter readings can be stored



Define the start-/ store time of the data logger function

Shows when and how often a meter reading is stored

Attention: If the data logger is already activated and you want to change the logging period, first deactivate the data logger!
The submitted radio protocol is as short as possible to assure a long battery life time. For this reason only the last data logger value got a time stamp. If you now just change the logger interval the old values are wrong interpreted and the history gets useless.
By deactivating the data logger all recent logger values are **erased** automatically.

Explanation how to change the logger period:

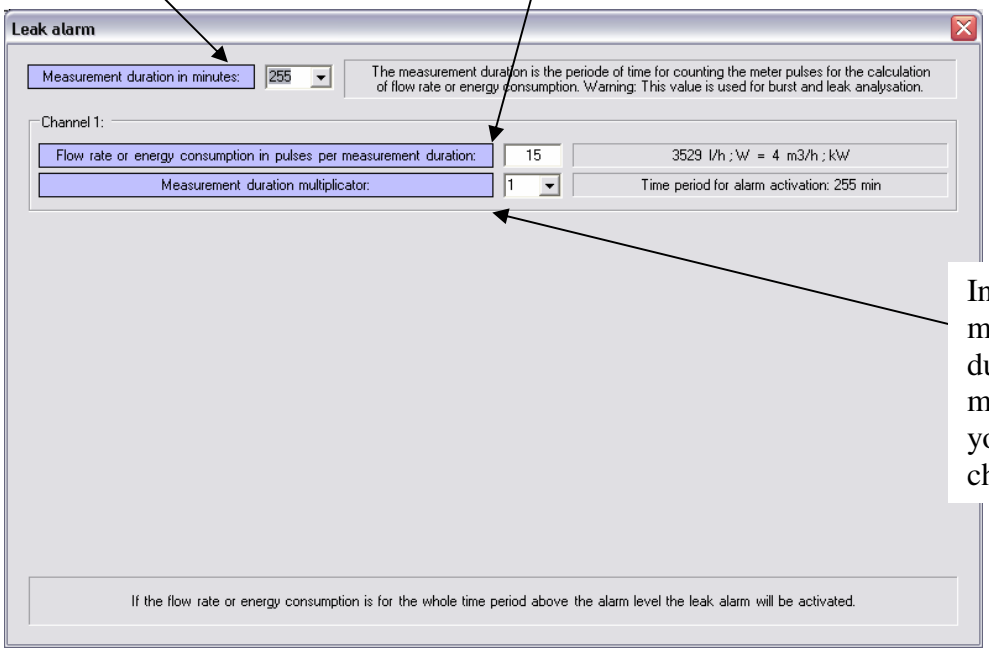
Read radio module (data logger values are stored in the history in Module D) → Turn data logger off → write the changed values into the radio module ("Write" button) → reactivate the data logger with the new intervals → write the changed values into the radio module ("Write" button) again

Note: The data logger is automatically **deactivated** by changing the time in the radio module

4.1.6 Leak alarm

Duration, when the threshold of the flow rate must be exceeded to release the alarm.
Max. 255 minutes, parameterise bigger values with the multiplicator.
Attention: The duration time applies

The threshold (in pulses) shows what flow, in the set duration time, causes an alarm


Leak alarm
Measurement duration in minutes:
255
The measurement duration is the periode of time for counting the meter pulses for the calculation of flow rate or energy consumption. Warning: This value is used for burst and leak analysation.
Channel 1:
Flow rate or energy consumption in pulses per measurement duration:
15
3529 l/h ; W = 4 m3/h ; kW
Measurement duration multiplicator:
1
Time period for alarm activation: 255 min
If the flow rate or energy consumption is for the whole time period above the alarm level the leak alarm will be activated.

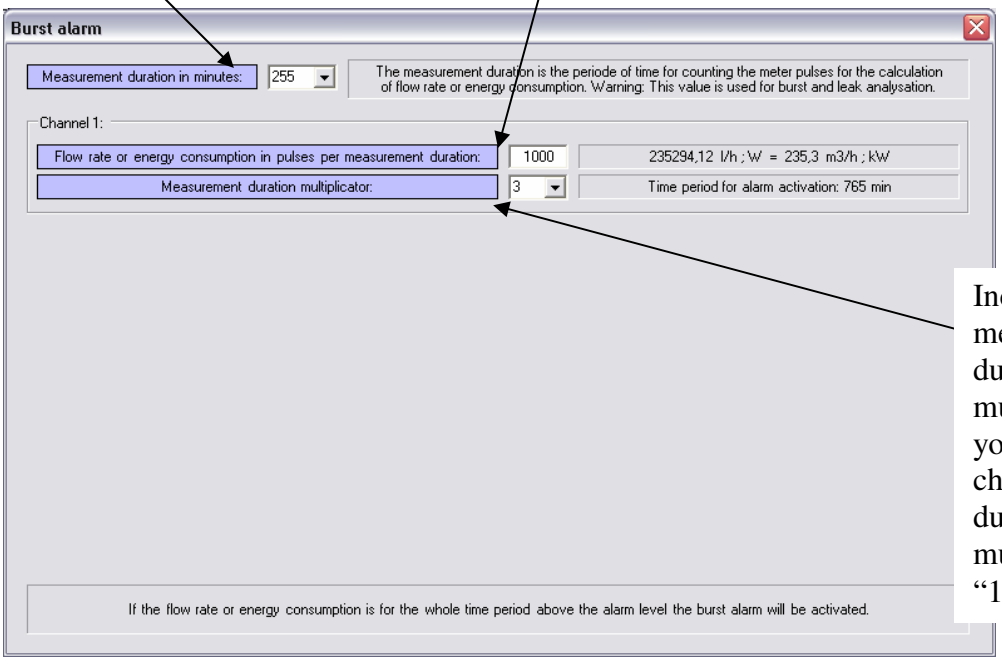
Parameterisation for channel 1. If more channels are activated they can be parameterised, too.

Increase the measurement duration via the multiplicator. If you don't want to change the

4.1.7 Burst alarm

The duration is the timer when the threshold of the flow rate must be exceeded to release the alarm.
Max. 255 minutes, parameterise bigger values with the multiplicator.
Attention: The duration time applies

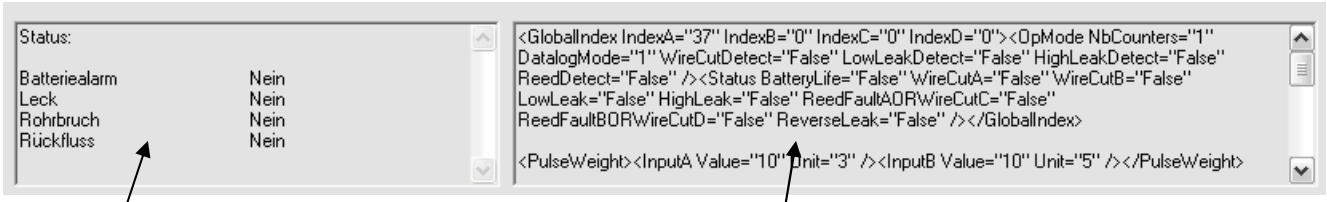
The threshold (in pulses) shows what amount of flow, in the set duration time, causes an alarm


Burst alarm
Measurement duration in minutes:
255
The measurement duration is the periode of time for counting the meter pulses for the calculation of flow rate or energy consumption. Warning: This value is used for burst and leak analysation.
Channel 1:
Flow rate or energy consumption in pulses per measurement duration:
1000
235294,12 l/h ; W = 235,3 m3/h ; kW
Measurement duration multiplicator:
3
Time period for alarm activation: 765 min
If the flow rate or energy consumption is for the whole time period above the alarm level the burst alarm will be activated.

Parameterisation of channel 1. If more channels are activated they can be parameterised, too.

Increase the measurement duration via the multiplicator. If you don't want to change the duration set the multiplicator on "1"

4.1.8 Status



Shows the alarm status

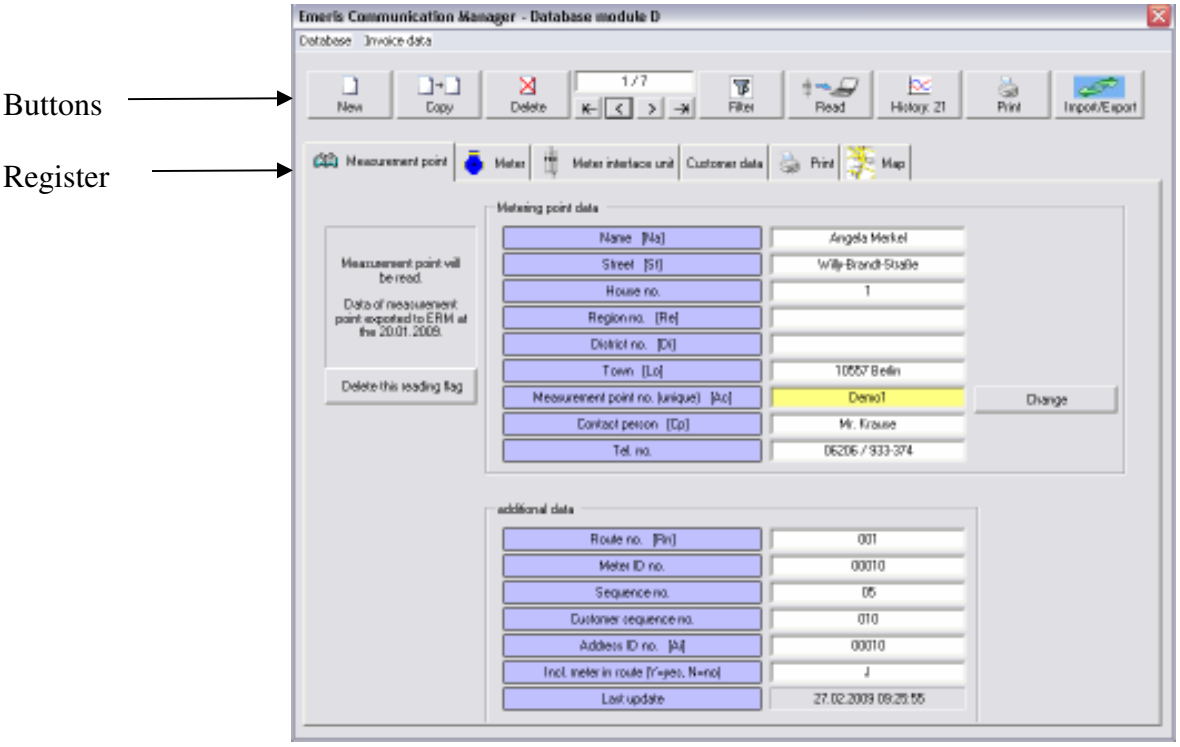
No relevance for users

4.2 Module D

In the database module D all information about the individual measuring points and the inserted radio modules is shown. Here the operator can store information over the measuring point, the meter, the radio module and the customers.
Apart from this fundamental information there is the possibility to represent the meter progress also graphically and alphanumerically and to export the data base to Excel.

4.2.1 Operation

After starting module D the following window appears:



With the “Buttons“ new data records can be put on, copies by existing records can be created and individual entries can be deleted.
Over the arrow keys you can switch between the individual data base entries. By the Button „filters “and special keywords can the number of indicated data records can be limited.
„History“ forms a graphic diagram by the stored meter readings of the measuring point. The indicated period and the representational form can be selected freely.

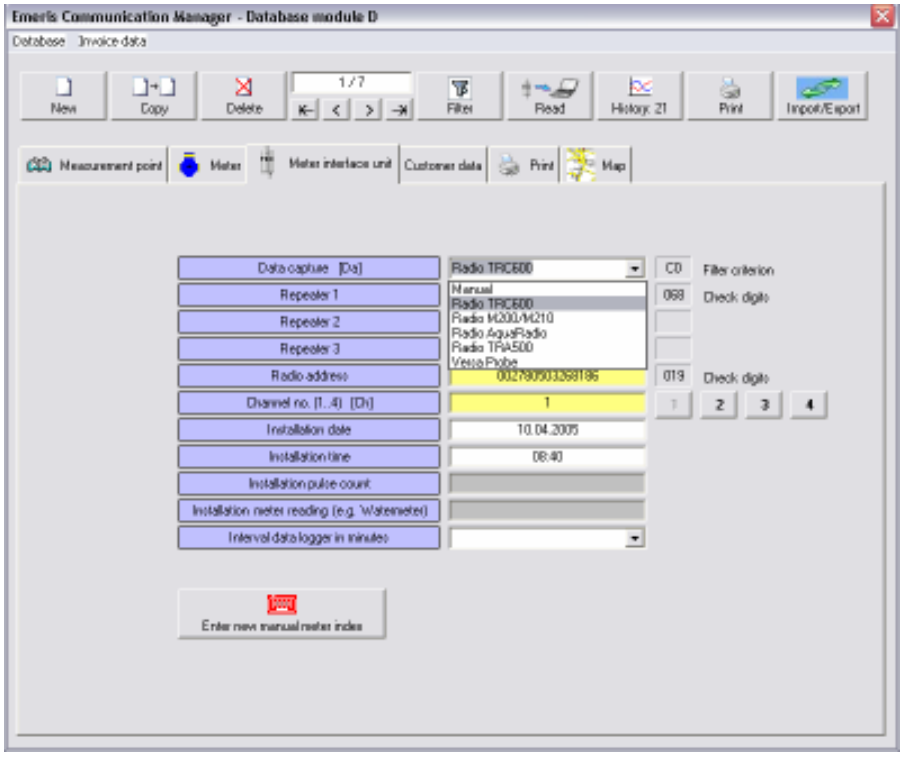
If a measuring point is to be read out directly, Module C can be opened directly for over the Button “Read” and the indicated radio module address is inserted automatically.

Data base contents can be transferred also to Excel or to the EMERIS route manager. For this the Button „Import/Export“is used.

4.2.2 Database input fields

To use and import/export the data records, it is important that the yellow deposited fields, in every register, are filled out and that the “measurement point no.” (in register “Measurement point”) is entered unique in every data base entry.
The entry “pulse rate per unit” (in register meter) must be correctly entered, in order to guarantee the correct processing of the selected values.

In order to activate the data acquisition over a radio module it is important that in the register „Meter interface unit“ the data acquisition is set on „Radio TRC600“. The „Radio TRA500“ is the older radio system of ELSTER. Since 2005, all sold radio components are of the type TRC600. The system „Versa probe“ is an Encoder similar logging system, which picks up the data by a Handheld. The meter interface module is powered inductively by the Handheld.

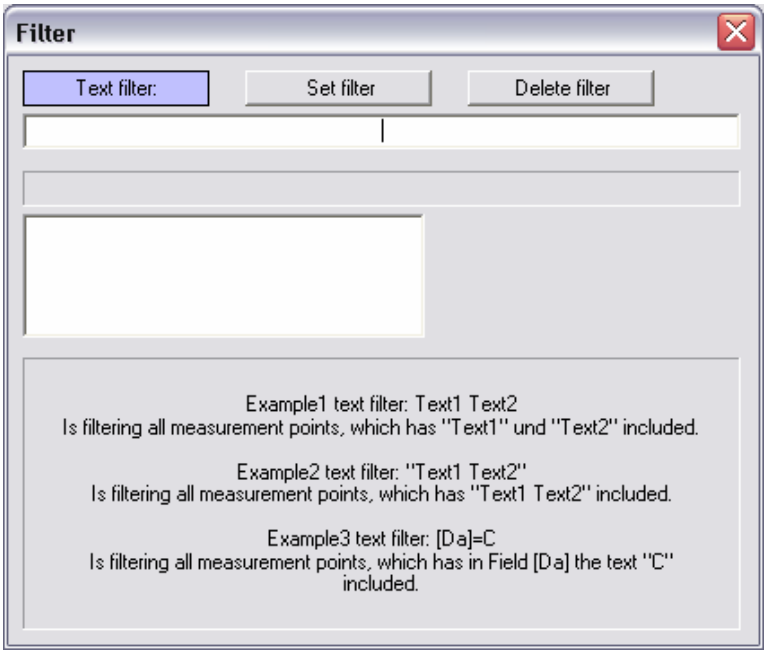


In addition to this it is necessary to enter the correct 15-digits long radio address and the associated channel („Channel no.“). When Repeaters are used, the radio address must be entered, too.
Note: If several Repeater are used, consider that „Repeater 1“ is the nearest to the person who reads out the data!

All further „white coloured fields“ did not contain necessary information for a successful radio transmission or an evaluation of the data. They only serve the clarity for the user.

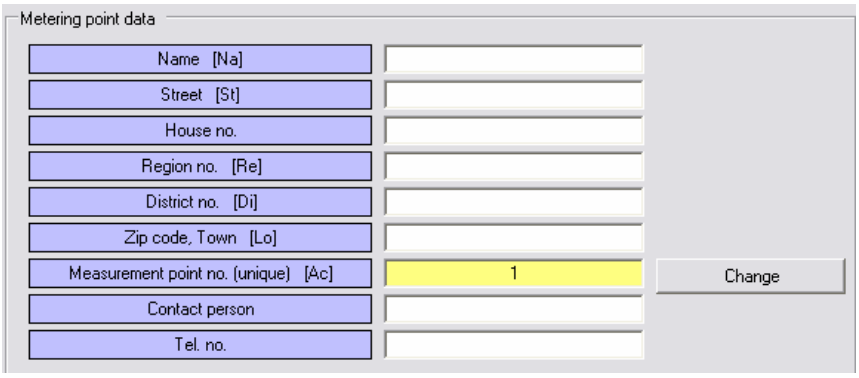
4.2.3 Filter function

With the filter function the number of indicated measuring points can be limited.
If lot data base entries are deposited, it is difficult to reach a measuring point entry over the arrow keys. The direct selection of a measuring point is possible with the filter function. As many as necessary references can be used, to minimize the number of indicated measuring points.
In general, this function works as a „and“ filter. Thus, only these measuring points are indicated, which somewhere contain the entered word or the entered words in the measuring point description. It doesn't matter in which field the appropriate words are deposited. During the input of several search words, these must not be deposited in the same description field.
In the following example the words “ELSTER“ and „Otto-Hahn-Straße“ must be in the measuring point entry. (ELSTER in the field „Name“ and “Otto-Hahn-Straße” in the field “Street “)
Note: Upper and lower case are to be considered in the filter function absolutely!


Filter
Text filter:
Set filter
Delete filter
Example1 text filter: Text1 Text2
Is filtering all measurement points, which has "Text1" und "Text2" included.
Example2 text filter: "Text1 Text2"
Is filtering all measurement points, which has "Text1 Text2" included.
Example3 text filter: [Da]=C
Is filtering all measurement points, which has in Field [Da] the text "C" included.

When you, for example, search for all entries of a certain road, it is possible that the street name exists out of several words, like e.g. Lorscher Weg.
In order to look for exactly these entries, “Lorscher Weg” must be entered into the filter text (with quotation marks!). Then only the measuring points appear in those „Lorscher Weg “ is entered in one measuring point field (here „Street“).
It is also possible to enter just a part of the searched term. When you search for entries similar to „Otto-Hahn-Straße“, it is enough to enter “Otto-Hahn” (with or without quotation marks) or „Otto Hahn“ (without quotation marks) into the filter.

A further helpful filter function can be used over the abbreviations of the measuring point entries.



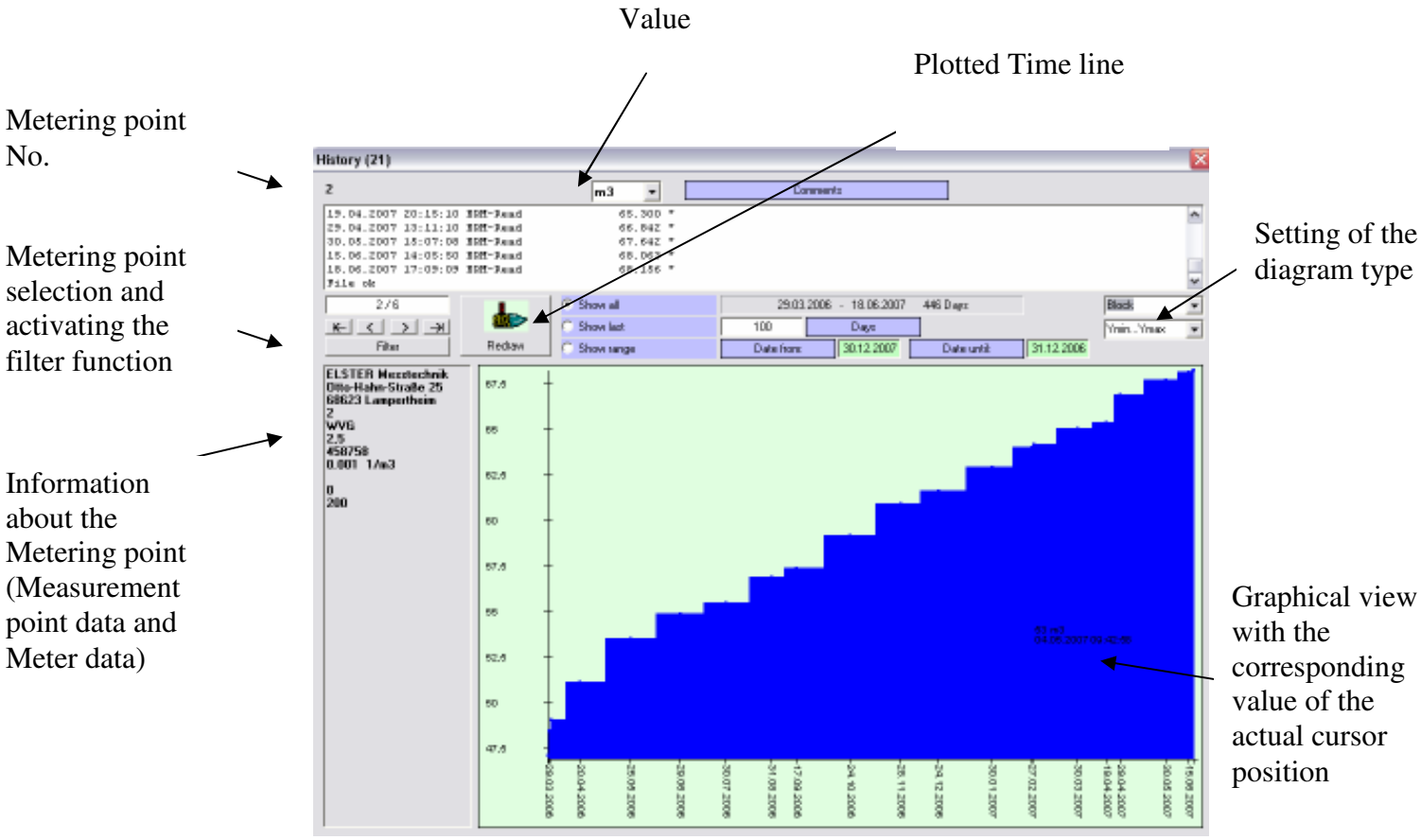
You can see in the illustration that there are some abbreviations in the register „Metering point data“. [Na] symbolises the Name, [St] is the Street, etc.
Note: The accurate abbreviation must be entered into the filter.
e.g.: [Na]=ELSTER

The upper and lower case are also of crucial importance.
A search like the following would lead to no result:
e.g.: [**n**a]=ELSTER or [N**A**]=ELSTER

With this filter variant no blank may follow after the angular clammy and after the equal character.
As criteria also several abbreviations can be used. These are separated by a blank.
e.g.: [Na]=ELSTER [St]=Otto

4.2.4 History

By the history the meter progress can be plotted during the entire time or a certain period. The history uses the actual read out data from the radio module and the saved data logger values, if available.



In the history view any measuring point can be indicated over the metering point selection field. The filter function works exactly the same as descript in chapter 4.2.3.
In order to be able to limit the indicated range individually, an initial date and a final date can be entered. As soon as at one of the two entries a change is made here, the marking changes on the point „Show Range" automatically. It is Important to enter a correct date in the format „DD.MM.YYYY ". Otherwise the appropriate date field is deposited red and an evaluation is not possible.

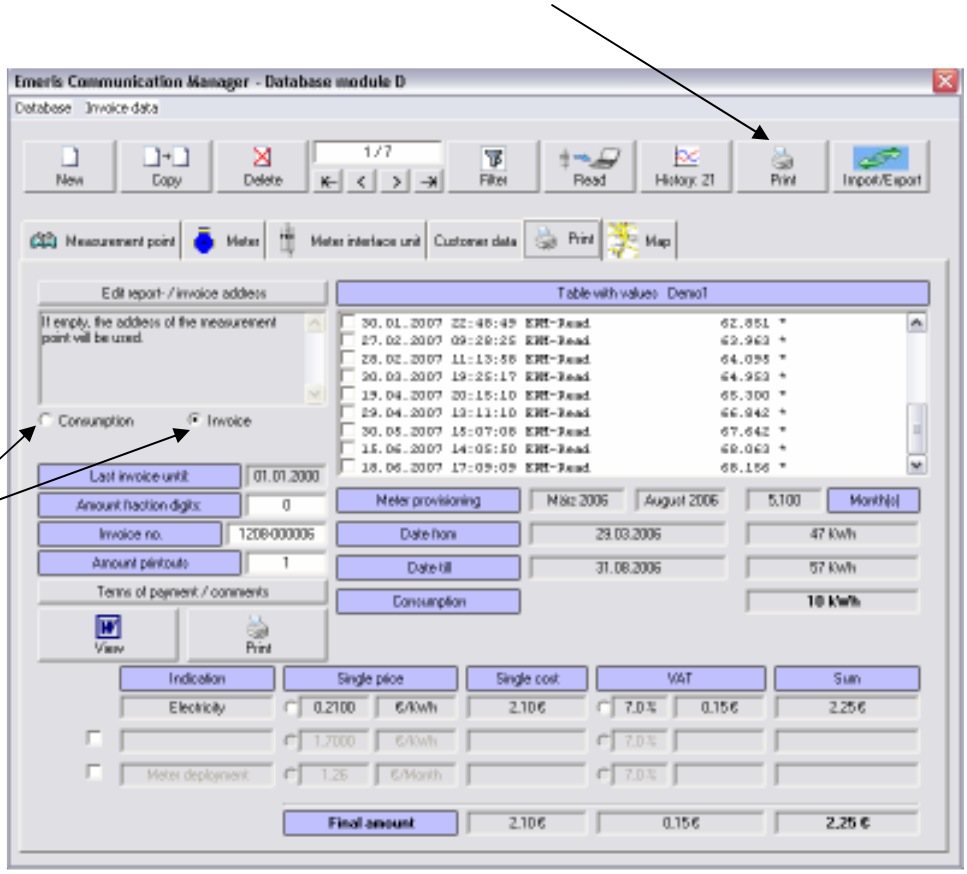
The information about the measuring point on the left display screen page, contains the following entries:
- Measuring point name
- Street
- Zip code, Town
- Measurement Point No.
- Meter Type
- Meter size
- Meter number
- Pulse rate per unit
- Reading cycle
- Minimum consumption
- Maximum consumption

If nothing is deposited in one of these input fields, the appropriate line remains empty.

4.2.5 Print

Starting from the ECM version 3.01b there is the possibility to print the consumption data and invoices in Module D. For this reason the register “Print” was added.

Additionally to the new register there is another “Print”-button in the upper list.



You can select whether the consumption data or the invoice is printed.

If the Button “Print” from the upper list is pressed, you can select between the consumption data or the invoice that is printed. Subsequently, all filtered metering points are printed. If no metering points are filtered, all existing metering points are printed!

In order to print a single metering point, first the metering point must be selected.
Afterwards, one period must be selected in the consumption table. This period may consist only of a starting date and a final date!
If you don’t add a „report-/invoice address “, the address from the register „Measurement point“ is used.
Apart from individual terms of payment or comments also the individual prices and tax rates for water, waste water and meter deployment can be set.

If all necessary inputs are made, start the print via the „Print” Button under „Terms of payment/comments“.

Now a Word-document opens, in which you click on “activate macros“. Afterwards the print is started.

The basic layout of the consumption data/invoice can be individually adapted.

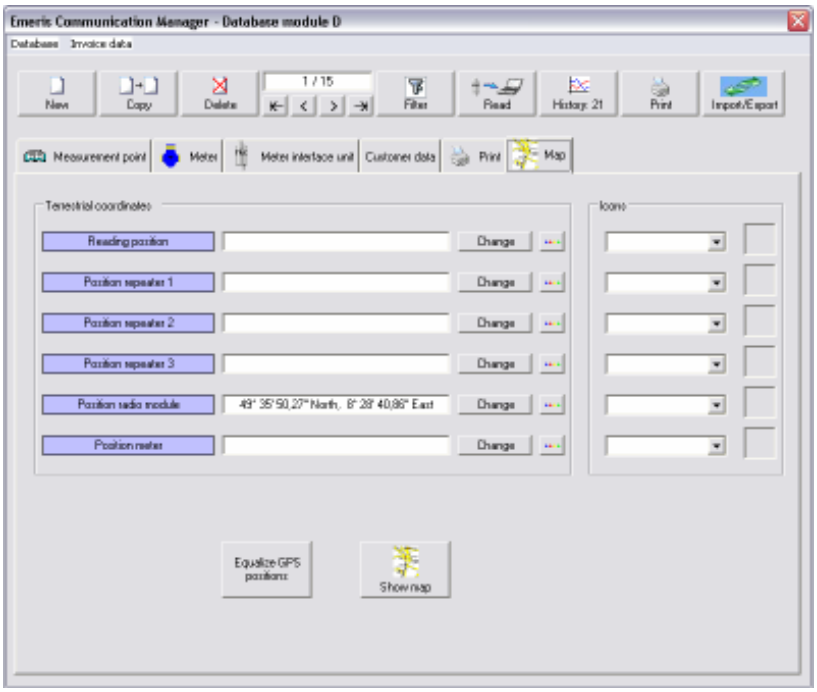
For this, open the Word file „PrintMacroVorlage.dot“ in the installation listing. Normally the path is: C:\Programme\EMERIS Communication Manager\ ECM \ Custom DATA

When you changed the Word file after your needs, you must store it again under the same file name.

Note: Here it is particularly necessary to save the data in the file format .dot

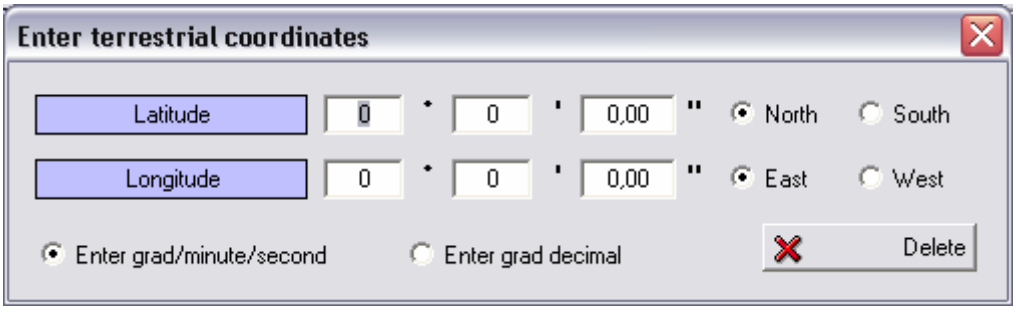
4.2.6 Map

The Map function allows you to insert different maps of the meter locations. You can use every JPG or BMP files.



To use the GPS based sequence reading you need to fill in the coordinates of the „Reading position“ for your measurement points!

Therefore click the “change” button behind the text field READING POSITION and enter the coordinates in the format of your choice..



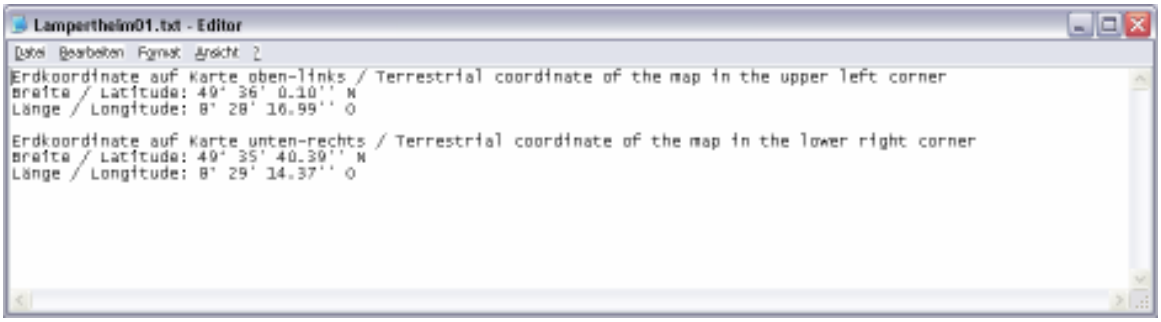
To insert a new map follow these steps:

- Make a map screenshot out of e.g. Google Maps or Microsoft Virtual Earth. Remember the terrestrial coordinate of the map in the upper left and in the lower right corner.
- Save the map as JPG or BMP file. The file name is individual (e.g. Lampertheim01.jpg)
- Copy the file to the folder:
  C:\Programme\Emeris Communication Manager\ECM\Custom data\Map
- Create a .txt file with the name of the JPG or BMP file (in our case Lampertheim01.txt) and insert the text:

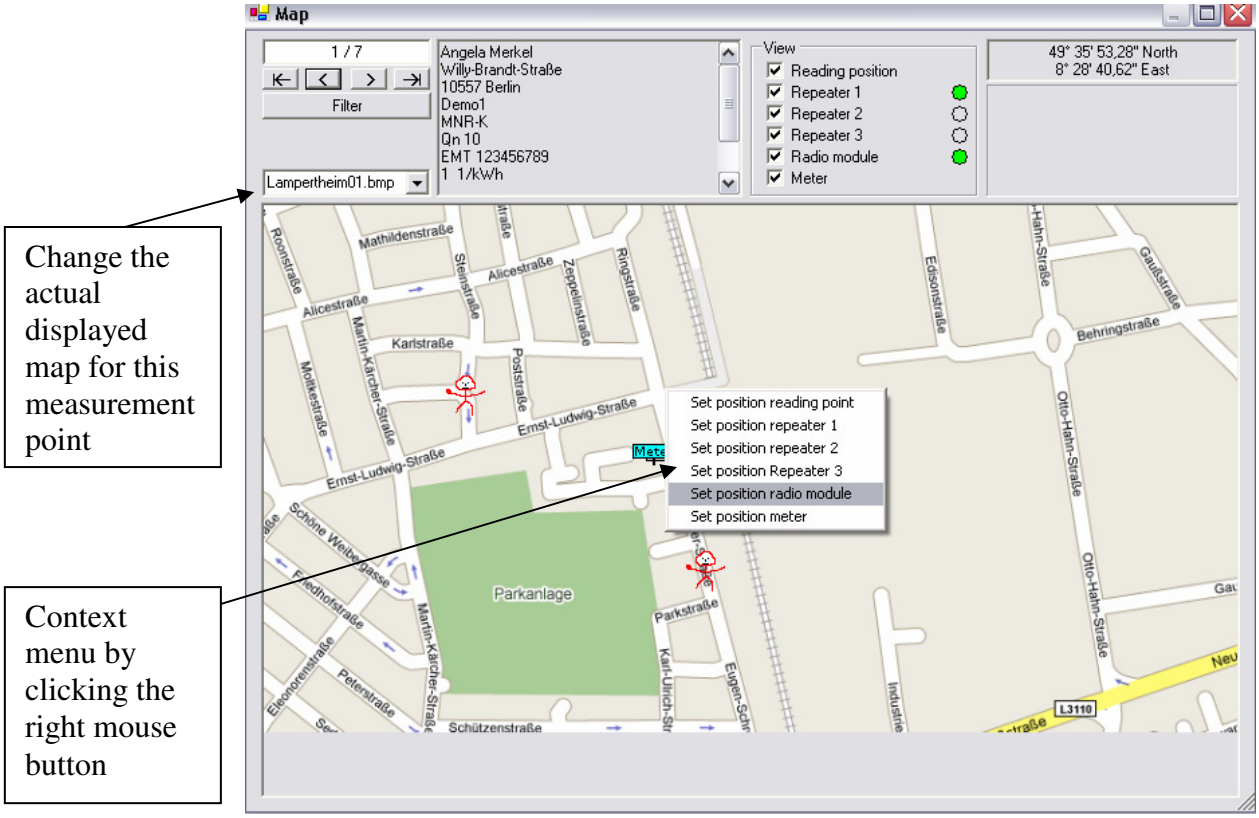
Erdkoordinate auf Karte oben-links / Terrestrial coordinate of the map in the upper left corner
Breite / Latitude: 0° 0' 0'' N
Länge / Longitude: 0° 0' 0'' O

Erdkoordinate auf Karte unten-rechts / Terrestrial coordinate of the map in the lower right corner
Breite / Latitude: 0° 0' 0'' N
Länge / Longitude: 0° 0' 0'' O

- Replace the “0” with the coordinates of your map.
- You can also use a demo “txt” file and save it with a new name.
-


Lampertheim01.txt - Editor
Datei Bearbeiten Format Ansicht ?
Erdkoordinate auf Karte oben-links / Terrestrial coordinate of the map in the upper left corner
Breite / Latitude: 49° 36' 0.10'' N
Länge / Longitude: 8° 28' 16.99'' O
Erdkoordinate auf Karte unten-rechts / Terrestrial coordinate of the map in the lower right corner
Breite / Latitude: 49° 35' 40.39'' N
Länge / Longitude: 8° 29' 14.37'' O

After you saved the “txt” and the graphic file, you can open ECM go to Module D in the register “Map” and click on “Show map”. Now you can define a map to every Measurement point in your database.



You can set the different radio modules on the map by clicking the right mouse button somewhere in the map view.

The icons used can be designed individually. Save your own ".ico" graphic (**ONLY** a resolution of 32x32 **WORKS**) in the folder:
C:\Programme\Emeris Communication Manager\ECM\Custom data
and be sure your file name starts with "map" (e.g. "mapCustom Flag.ico")

5 Module M

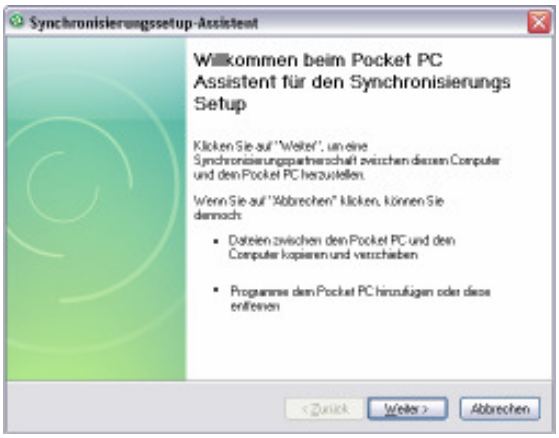
The ECM Module M is used for the transmission of routes to and from a PDA or Smartphone with Windows Mobile operating system. In connection with the TRC604 B Bluetooth antenna you can start a radio based read-out.

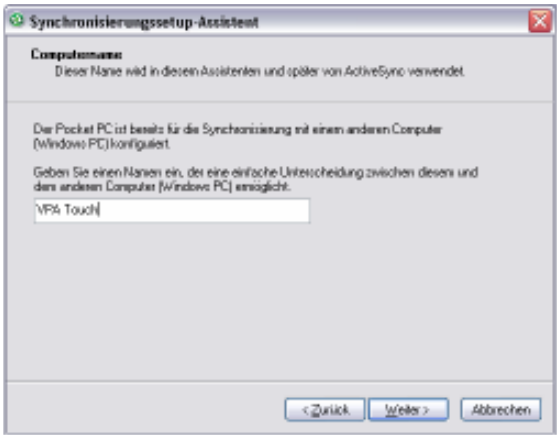
5.1 Installation

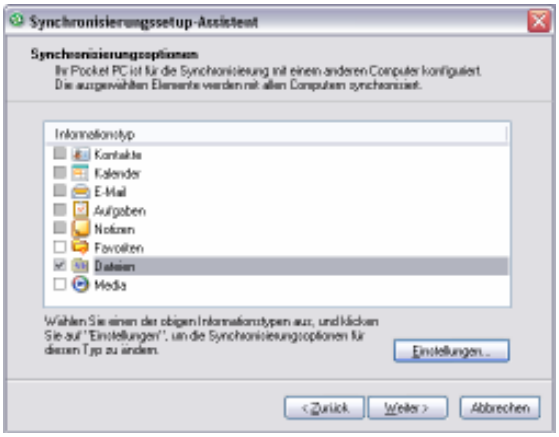
First you must activate the Module M extension with the licence code (compare point 3 „Program“).

You need to check if the program „Active Sync “from Microsoft is installed on your computer. If this is not the case, you can download „Active Sync “free of charge in the world wide web.

After successful installation you must synchronise the PDA with your computer. The synchronisation assistant should start immediately.


Synchronisierungssetup-Assistent
Willkommen beim Pocket PC Assistent für den Synchronisierungs Setup
Klicken Sie auf "Weiter", um eine Synchronisierungspartnerschaft zwischen diesem Computer und dem Pocket PC herzustellen.
Wenn Sie auf "Abbrechen" klicken, können Sie dennoch:
Dateien zwischen dem Pocket PC und dem Computer kopieren und verschieben
Programme dem Pocket PC hinzufügen oder diese entfernen
< Zurück
Weiter >
Abbrechen

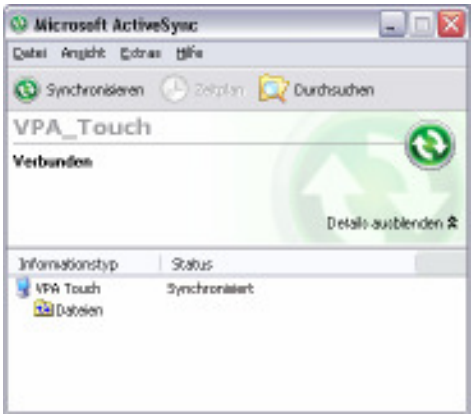

Synchronisierungssetup-Assistent
Computername
Dieser Name wird in diesem Assistenten und später von ActiveSync verwendet.
Der Pocket PC ist bereits für die Synchronisierung mit einem anderen Computer (Windows PC) konfiguriert.
Geben Sie einen Namen ein, der eine einfache Unterscheidung zwischen diesem und dem anderen Computer (Windows PC) ermöglicht.
VPA Touch
< Zurück
Weiter >
Abbrechen



Select a computer name for the PDA and select afterwards the type “Files” which need to be synchronised. In any case the type „FILES“ must be selected. The program now stores, according to the standard installation path, a file in the folder „My documents “on your computer.

This usually is:
„PDA description“ **My documents**

The path is like:
My documents\ VPA_Touch My documents



Now copy the file „Setup_ECM_M.cab” to your PDA. This file is located in: C:\Programs\ELSTER Messtechnik GmbH\ECM\System

My Mobiler
File Edit View Help
Start
Installieren von Setup ECM_M.CAB ...
Setup ECM_M.CAB
Das Programm stammt von einem unbekannten Herausgeber. Sie sollten es nur installieren, wenn Sie dem Herausgeber vertrauen. Möchten Sie den Vorgang fortsetzen?
Name: Setup ECM_M.CAB
Ort: \My Documents\Geschäftlich
Ja
Nein

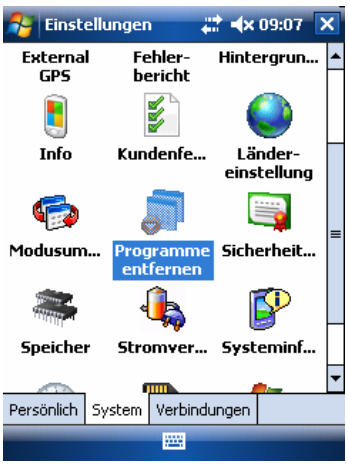
My Mobiler
File Edit View Help
Start
Setup ECM_M.CAB wurde erfolgreich auf dem Gerät installiert.
Falls Sie mehr Speicherplatz benötigen, können Sie installierte Programme entfernen.

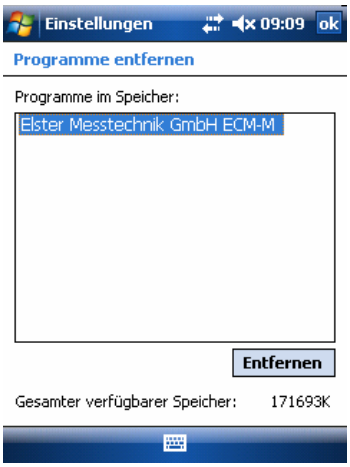
Start the installation file on your PDA. Answer the safety reference with „Yes“. Then select a storage location (e.g. PDA or memory card) and wait until the program is installed. Afterwards you receive the message, that the program „Setup_ECM_M.CAB“ was successfully installed.

5.1.1 Installation of a new version of Module M

Before you update your software version of Module M, you need to uninstall Module M from your PDA. To uninstall ECM Module M follow these steps:

Click the „Start“ menu button on your PDA. Choose “Settings” → “Remove programs”
Now mark “Elster Messtechnik GmbH ECM-M” and press the “Remove” button.





Confirm the appearing window with „Yes“ and the uninstall process of the old version is completed.

To install the newer version refer to point 5.1 “Installation” in this manual.

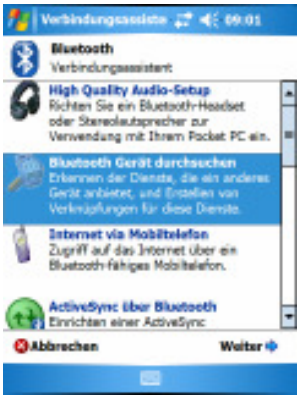
5.2 Installation of the Bluetooth antenna in Windows Mobile 5

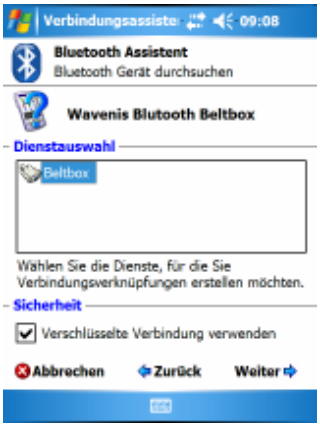
The next step is to install the Bluetooth connection between the PDA and the Bluetooth antenna. For this you go on the PDA into the menu „Connections“ and select Bluetooth. Make sure that the Bluetooth interface is switched on. Then change into the „Bluetooth Manager“. Select „Paired devices“ and click on the search symbol on the right bottom. If the Bluetooth antenna is switched on, you find the equipment „Wavenis Bluetooth Belt“. Select this and enter the password “0000”. Subsequently, you leave the menu with „ok “. Now you are again in the Bluetooth Manager under the register „Links“. Select „New“. In the Bluetooth connection assistant choose the point “Scan Bluetooth device“.
As soon as the Wavenis antenna appears, select it. Within the service selection you mark the function „Beltbox “and set under „security“ the checkbox with „secure connection“. Subsequently, you click „Next“.
The initialisation of the Bluetooth antenna is now finished.

The down following illustrations show the steps just described as screen sequence on the PDA.

Bluetooth Manager
Bluetooth: Gekoppelte Geräte
Gerät:
Kennwort:
Abbrechen
So verwenden Sie diesen Bildschirm
Um ein Gerät zu koppeln, tippen Sie auf das Such-Symbol, wählen Sie ein Gerät, geben Sie ein Kennwort ein, und tippen Sie auf OK.
Bei der Bluetooth Kopplung von Geräten wird ein geheimer Schlüssel erstellt, der bei allen künftigen Verbindungen verwendet wird.

Bluetooth Manager
Bluetooth: Gekoppelte Geräte
Gerät:
Wavenis Bluetooth B
Kennwort:
****
Abbrechen
So verwenden Sie diesen Bildschirm
Um ein Gerät zu koppeln, tippen Sie auf das Such-Symbol, wählen Sie ein Gerät, geben Sie ein Kennwort ein, und tippen Sie auf OK.


Verbindungsassiste
Bluetooth
Verbindungsassistent
High Quality Audio-Setup
Richten Sie ein Bluetooth-Headset oder Stereolautsprecher zur Verwendung mit Ihrem Pocket PC ein.
Bluetooth Gerät durchsuchen
Erkennen der Dienste, die ein anderes Gerät anbietet, und Erstellen von Verknüpfungen für diese Dienste.
Internet via Mobiltelefon
Zugriff auf das Internet über ein Bluetooth-fähiges Mobiltelefon.
ActiveSync über Bluetooth
Einrichten einer ActiveSync
Abbrechen
Weiter



5.3 Installation of the Bluetooth antenna in Windows Mobile 6

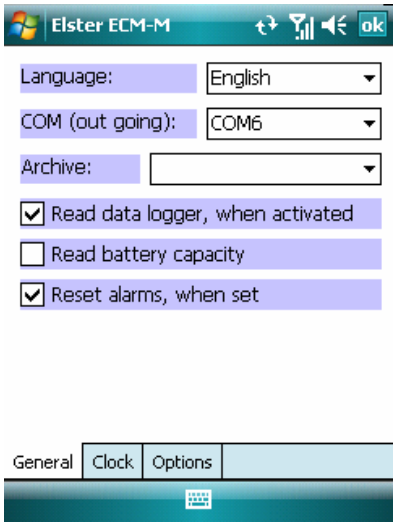
As next step you parameterise the Bluetooth connection between the PDA and the Bluetooth antenna. Start the menu „Connections“ on the PDA and select Bluetooth. Look afterwards for all available Bluetooth devices. If the TRC604 B antenna is switched on, the device „Wavenis Bluetooth Beltbox“ is found. Select this and add it as a serial connection.

As next you select the button „COM-connections” in the Bluetooth menu.
Input a new outgoing connection with „the Wavenis Bluetooth Beltbox “.
The selected connection should be COM 6. If this connection is not available or cannot be selected (ex.s: HP IPaq), you can choose any existing COM-Port between COM 1 and COM 9.

If you need a key or a password during the installation, use „0000“.

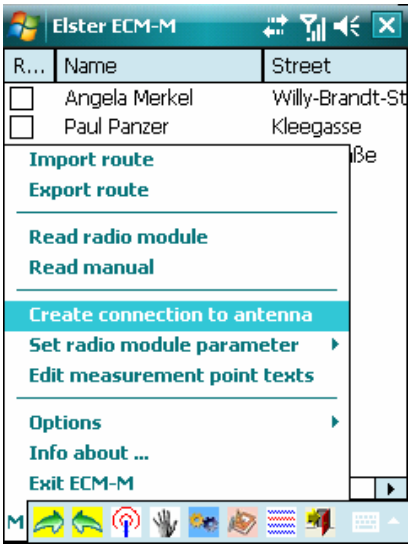
If you want the English version of the ECM M Software on your PDA, start the program and choose via the Menu on the left bottom (“M”) → “Options” → “Configuration”. After that you can choose your Language.

If you cannot select COM-Port 6, start ECM-M and choose via “Menu” → “Options” → “Configuration” the correct COM-Port.

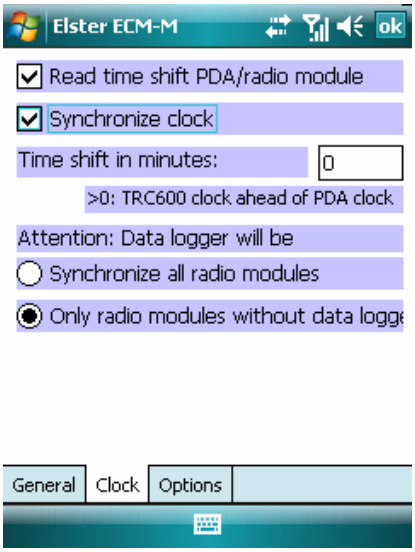


5.4 Program adjustment

Connection to the antenna:
To check if the installation of the antenna was successful, start the PDA program „Elster ECM-M "and select in the menu "M" at the left bottom of the screen the point „Create connection to antenna". If the installation was successful, the information „Connection with the antenna successfully established" appears.
Note: Be sure that the Bluetooth antenna is switched on and is fully loaded!



Data read-out and synchronisation of the radio modules:
In the menu point „Options" → „Configuration" you can choose whether you want to read out the data logger values or not. To store them, activate the checkbox in front.
In the register „Clock" you can determine whether the time of the radio modules is synchronised with the PDA clock or not.



If you synchronise the time, pay attention to the following facts:

- If the Datenlogger is activated, it gets **deactivated** after every time synchronisation! This depends on the fact that a change of time in the radio module makes the stored data logger values possibly useless. The deactivated data logger **cannot** be reactivated by the ECM PDA software. For this the ECM module C is necessary. (This problem is explained more detailed in the FAQ´s, question 4)
- Is the data logger deactivated, the time synchronisation has no effect.
- Have you just checked the field „Read time shift PDA/radio module“ there is **no effect**, whether you enabled or disabled the data logger.

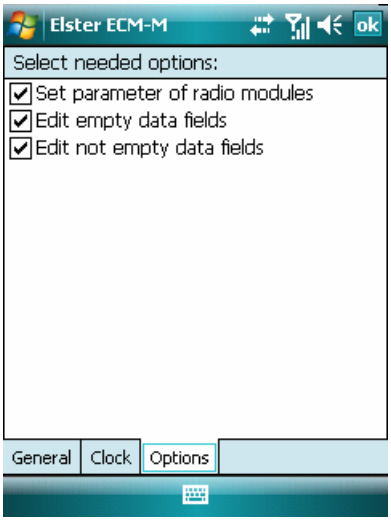
Indicated fields:
In the menu option „Extras“ and „indication areas“ can be individually activated or deactivated the represented columns. Here, all fields from the data base can be taken over by ECM module D.
It is advisable to activate the fields which indicate clear metering point identification. Among these is for example the metering point nr., the road, the place or the meter number.

Manual input:
If you selected a metering point in the ECM-M software, you can store the meter reading manually. Therefore, select in the menu “manual meter reading input”.
Note: The manually entered meter reading is not written into the radio module!
Momentarily the PDA software offers only read possibility and no write functionality.

Define user rights:
You can define if a PDA user just can read the radio module values or if he also can parameterise, e.g. the meter reading or the pulse value.
Set the rights under “Options” → “Configuration”.
The required password is: **admin001**
Now choose what kind of rights you want to activate.
The following rights can be chosen:

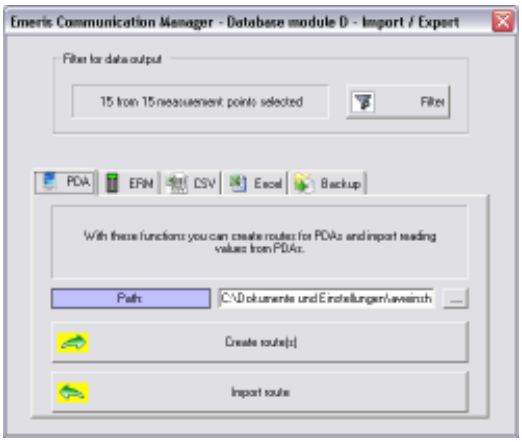
- Radio modules can be parameterized
- Empty text/data fields (text fields that are not filled out in Module D) can be changed
- Also non empty data/text fields can be changed

Attention: If you activate the last two rights, all changed entries will be copied to module D during the PDA to PC synchronization.



5.5 Preparation and transfer of the route data

The routes are created and maintained in the data base module D.
Therefore you need to identify the routes in the register „Measurement point“ → „Route no. [Rn]“.
To take up several measuring points to one route, fill in the same entry in the field „Route no“.
To create the routes click on the right upper Button „Import/Export “in module D.
Thereupon the following window opens:



The first step is to insert the path. Enter the location of the synchronization file, which you selected with the installation of „Active Sync“.
According to standard this is stored in the file „My documents“:

C:\”documents and settings” \“your WINDOWS user name“\My documents \ “your PDA IDENTIFICATION “My document \

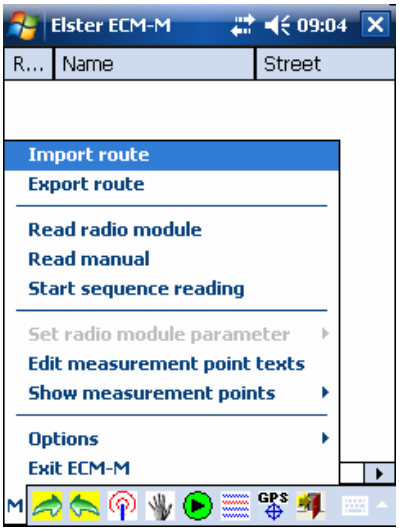
As soon as you entered the path you can press the Button “Create route(s)”.
Thereupon you get a message which routes were created.

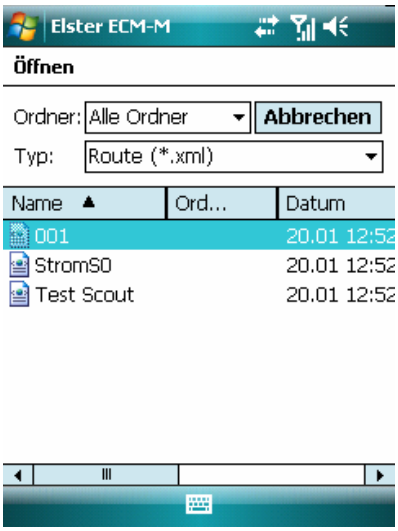
The route file ends always with the designation *.xml and „*“ is replaced by your route designation.
If you activated the filter function, you only get the routes of the filtered measurement points.

As soon as you connect the PDA with your PC, Active Sync starts the synchronization of the files and transfers the routes to the PDA. This can take place manually via the Button „Synchronize“ in Active Sync.

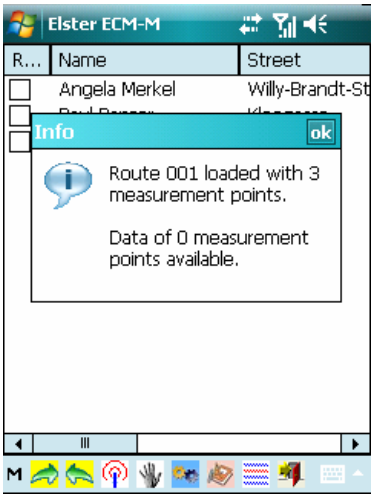
5.6 Initialise and start the read out with the PDA

After transferring the files successfully to the PDA, choose the point „Import routes“ in the menu of the ECM-M software on your PDA or click on the yellow marked arrow, which is directed to the right.





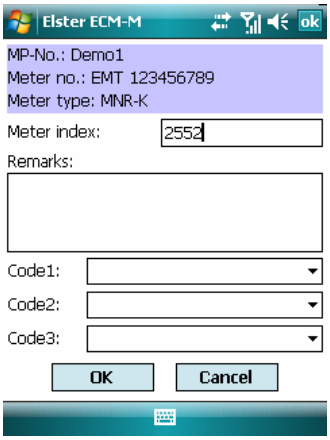
The following window shows you all available routes on the PDA. Select the route you want to read out. The system confirms you the loading process of your route. Now choose the measurement point you want to read and click on the following sign.



Subsequently you get information of the successful or the inaccurate read out.

5.6.1 Enter meter reading manually

You got the possibility to add measurement points without a radio module to your routes.
The symbol allows you to enter a meter reading fort he chosen metering point. It's also possible to manually enter a meter reading to a radio module equipped meter. This is necessary if the radio module is broken or the battery is empty. The manually entered meter reading is also transferred to the history in module D.
In addition to this, you can select different notes in the fields "Code 1 – 3". And you can enter an individual comment in the "Comments" field.

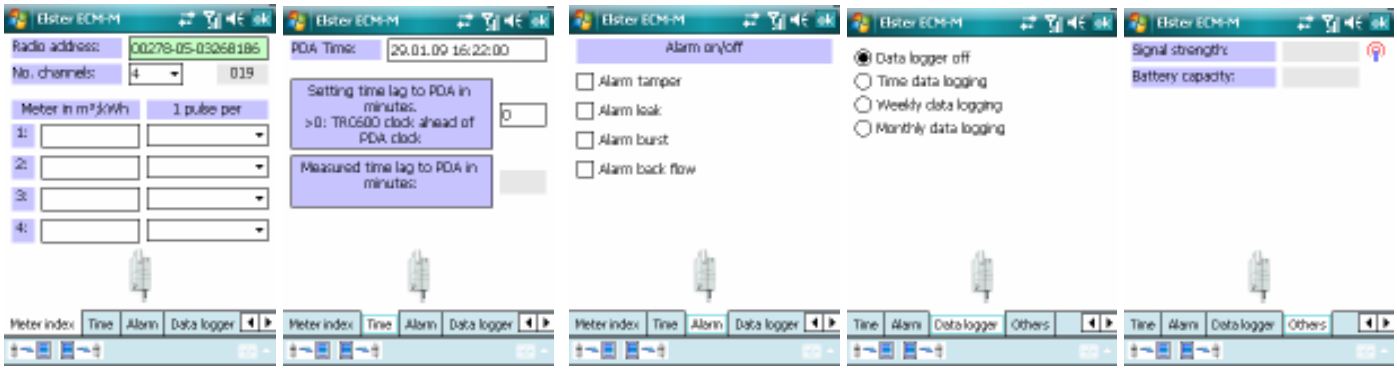


5.6.2 Radio module parameterisation

You can parameterise a radio module by clicking the button after you marked a measurement point in your route. The radio address field is automatically filled out. Next to the pulse rate and the meter reading you also can change all functions, similar to module C. For this use the registers:

- Time
- Alarm
- Data logger

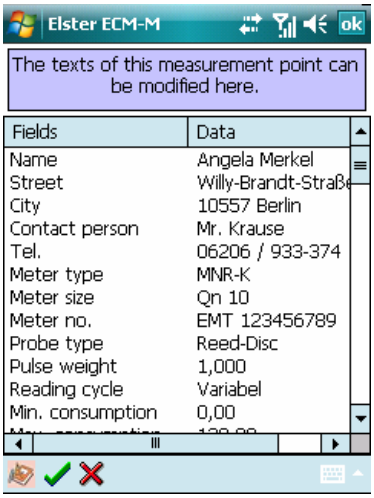
In the register „Others" you can see the actual signal strength and the battery capacity.
To read the values from the radio module press the button .
To write the changed values into the radio module press the button .



5.6.3 Edit measurement point texts

You can change all measurement point texts via the button .
Every change you make is transferred to the data base module D with the synchronisation.

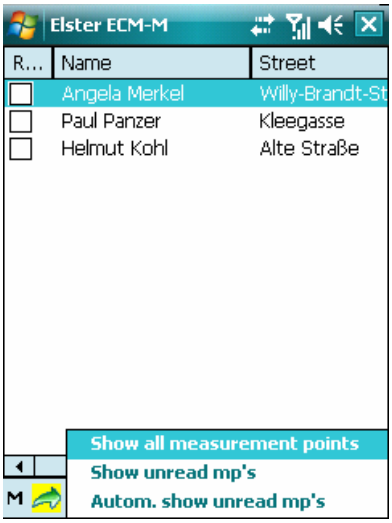
Attention: You only can change text fields if you set the user rights for this function in the configuration in the register “options”.



5.6.4 Visualization during the readout

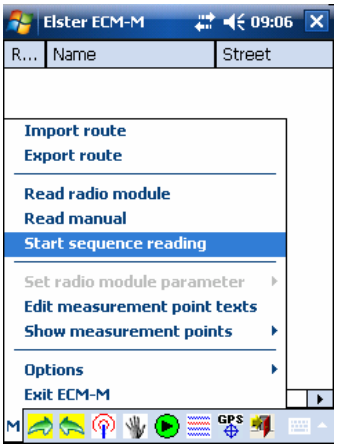
If you load a route with a lot of metering points, you can just show the unread points. First press the button and decide what metering points are shown.
You can choose between:

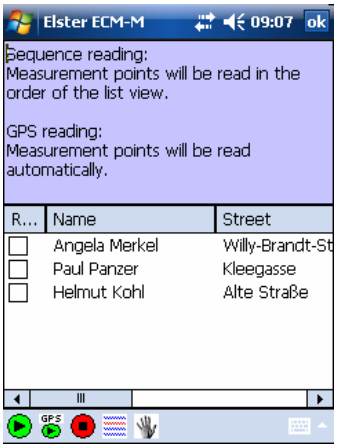
- „Show all measurement points“ → All metering points of the loaded route are shown
- „Show unread mp´s“ → All metering points of the loaded route are shown, that are not read yet.
- „Autom. show unread mp´s“ → Every read metering point is automatically blanked out after the successful meter reading.



5.7 Sequence reading via PDA

To start the sequence reading import a route and press the button “start sequence reading” in the menu.

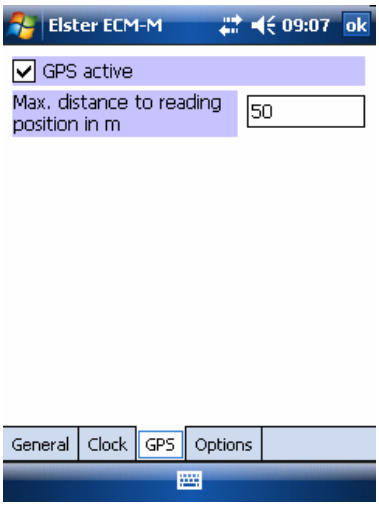


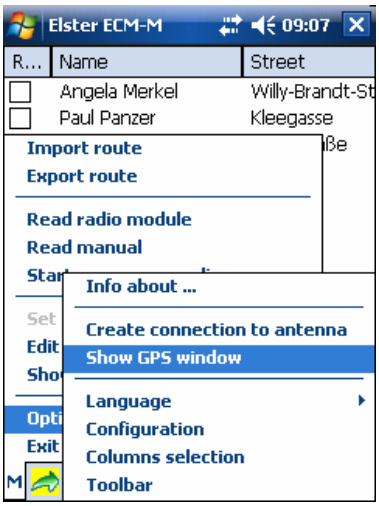


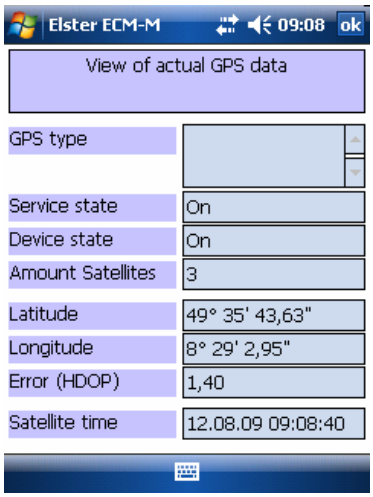
You can then sort the route according to criteria, such as street name, city, radio address, ... The sequence reading starts always with the first measurement point and works automatically downwards. To start the reading, click the bottom left symbol, the big black arrow in the green circle. You can use the different buttons at the bottom of the screen also during the reading to hide meter readings or insert different comments. The red "Stop" button, aborts the reading.

5.8 Sequence reading with GPS via PDA

First of all you can set the maximum distance to the radio module for the GPS-based reading.
Go to the register “GPS” in the “configuration” and check the field “GPS active”. Then you can set the max. distance, in meters, to the reading position when the system should try to reach the radio module. The “Show GPS window” gives you information about the current satelilite connection.

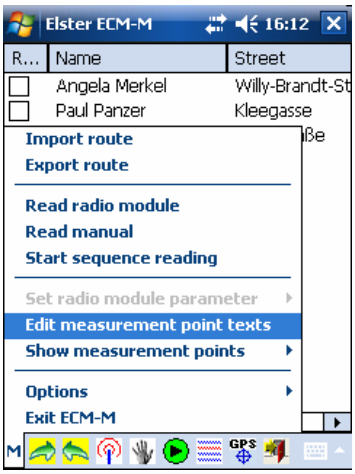


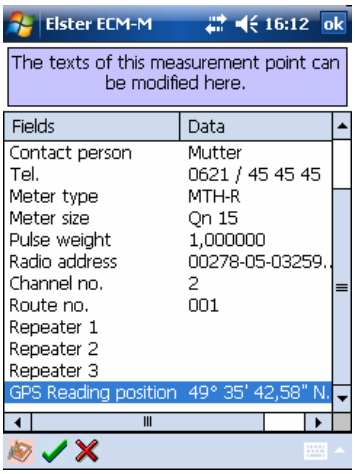


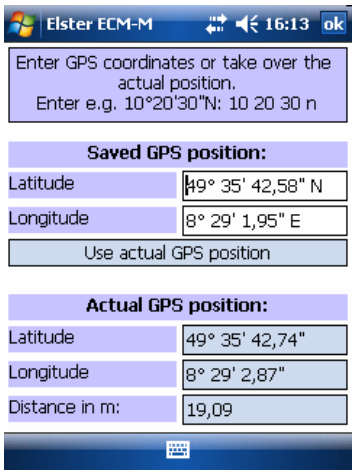


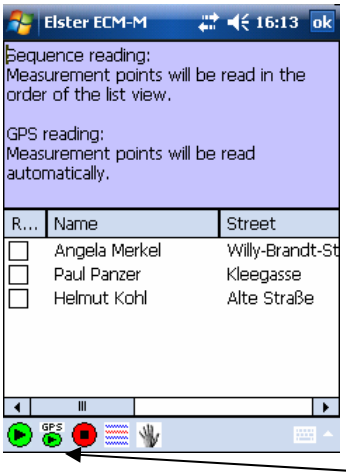
To start the GPS based sequence reading be sure that you entered the GPS coordinates for the measurement points in Module D. (reference to chapter 4.2.6 Map).

If you have not done yet, you can set the coordinates of the measurement point on the PDA:
First, import your route. Then be sure that you have set the appropriate rights to edit the measurement point texts.
Click in the menu "Edit measurement texts". Then choose the "GPS readout position" and click on the edit box on the left below. Once your GPS sensor indicates your current position you can confirm it by clicking the button "Use actual GPS position". Then click above on "OK" and then confirm the change on the green arrow at the bottom line.





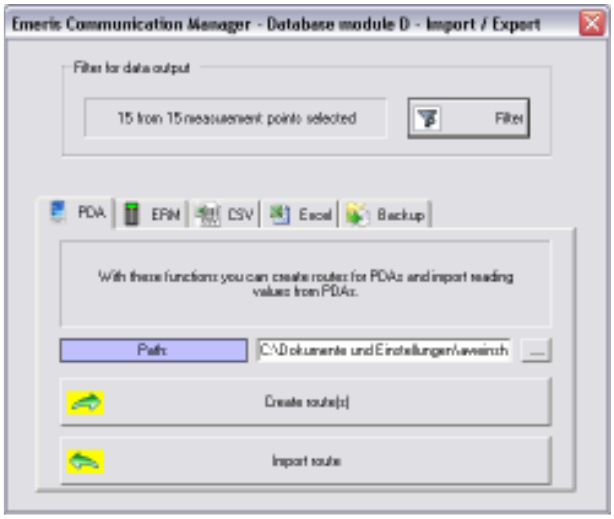

Elster ECM-M 16:13 ok
Enter GPS coordinates or take over the actual position.
Enter e.g. 10°20'30"N: 10 20 30 n
Saved GPS position:
Latitude 49° 35' 42,58" N
Longitude 8° 29' 1,95" E
Use actual GPS position
Actual GPS position:
Latitude 49° 35' 42,74"
Longitude 8° 29' 2,87"
Distance in m: 19,09


Elster ECM-M 16:13 ok
Sequence reading:
Measurement points will be read in the order of the list view.
GPS reading:
Measurement points will be read automatically.
R... Name Street
Angela Merkel Willy-Brandt-St
Paul Panzer Kleegasse
Helmut Kohl Alte Straße

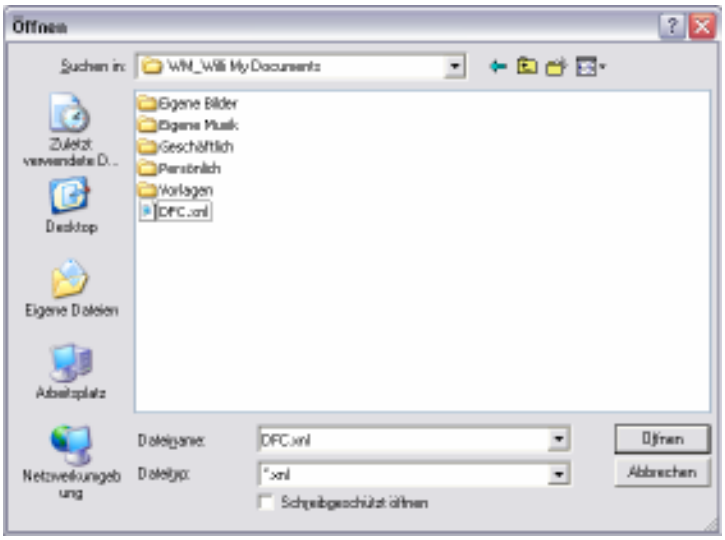
Now you are ready to start the Sequence GPS reading via the second button (grren arrow with the GPS text)

5.9 Transfer of completed routes back in the EMERIS Communication Manager

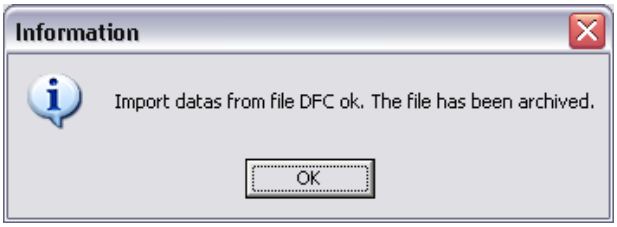
After the radio modules were read out, the PDA can be attached to the PC. Active Sync then copies the appropriate route files (*.xnl) into the master directory on the PC. After the synchronization has finished, select in module D the „Import/Export“ button and then the button „Import route“.



The *.xnl route data file can be chosen in the following window.



The successful import of the route data is confirmed with the following message.



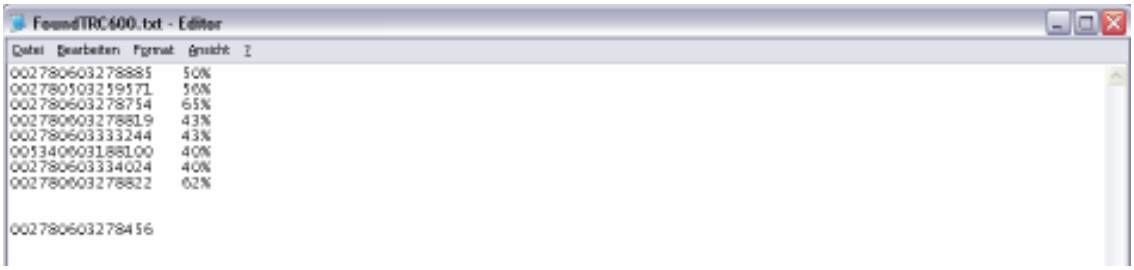
6 Parameterization of the radio module / Initiating before mounting

In this chapter it is described how to parameterise a larger number of radio modules in the simplest and fastest way and how to add them to the data base.
For a smooth operational sequence you should have the radio modules right next to you. It does not matter whether the modules are connected with a meter or not.

6.1.1 Insert radio module addresses in Module C

The more radio modules are used, the more time-consuming it is to add the radio module list in module C.
First it must be examined whether all radio modules are in range. Subsequently, the Button “Search Radio Modules” can be pressed.

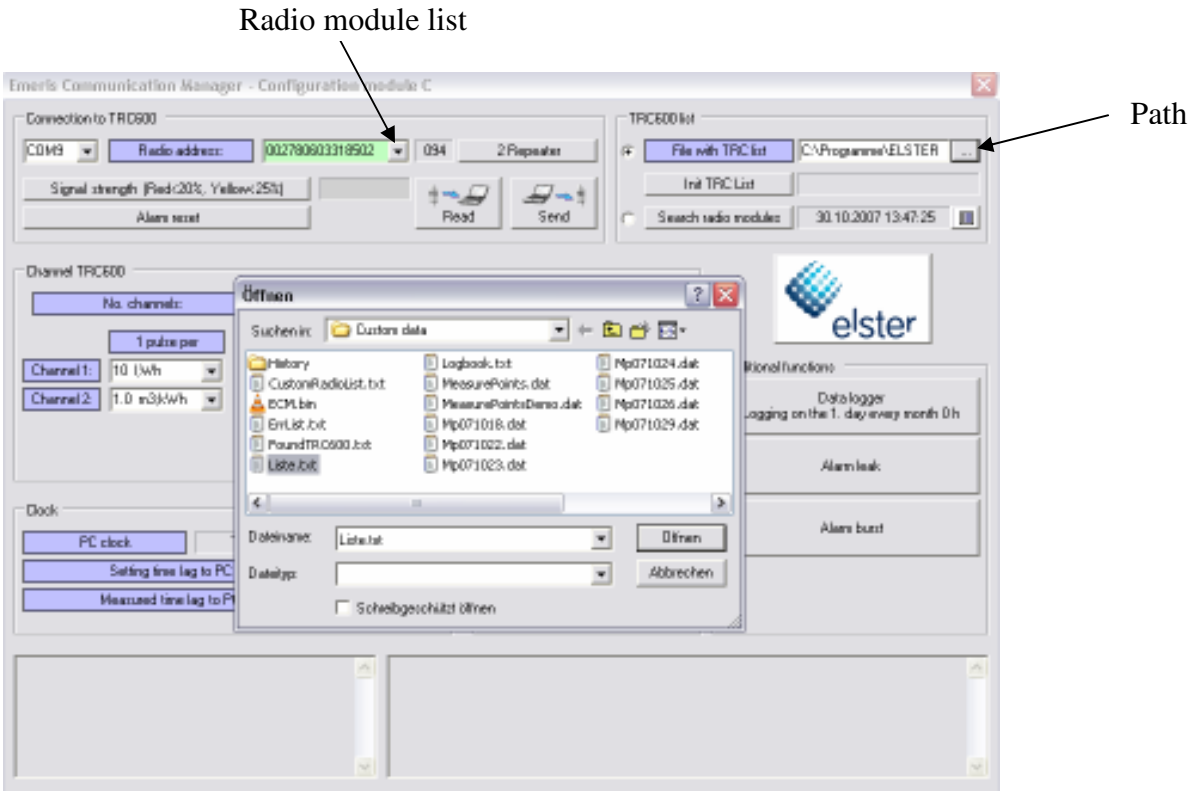
In a new window the number of found radio modules and receipt strengths appears.
If the program was installed in the standard file, you now find under the indication of path,
C:\Programme\ELSTER Messtechnik GmbH\ECM\Custom data
the txt file: „FoundTRC600.txt “
After opening the file you see a window like the following:



The missing addresses of the not recognized radio modules can be written simply into a new line. The receipt strength does not have to be entered. Confirm after input of the address with „Return“ and enter the next address.

Note: It is also possible to use a bar code scanner, to scan the radio module addresses and add them in such easy way to the list. This procedure is recommended starting from a larger number of radio modules.
In connection with the ELSTER ConText® meters you also can scan the meter number in!

In the next step you need to save the file as a new name. The new name and the new memory place are selectable. But it is important that the file name is not equal to „FoundTRC600 “and the file format remains *.txt.
Subsequently, you close the Txt file and return to the module C of the ECM software.
Via the Button „Path“ you select the former saved Txt file. Then press „Öffnen“ and the list is loaded into Module C.

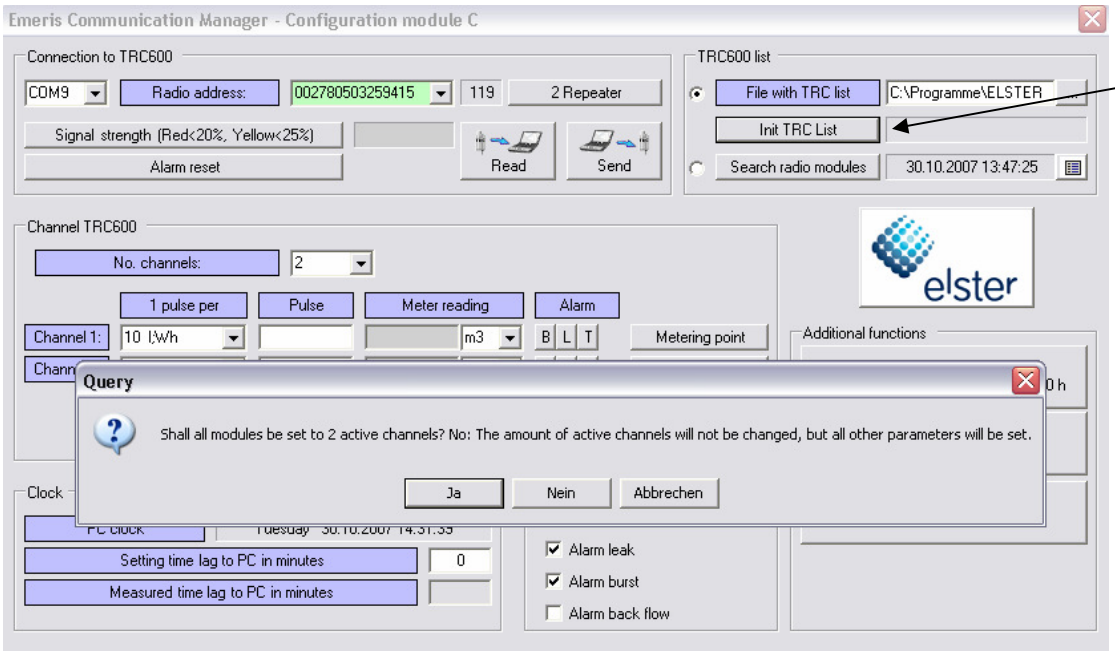


Afterwards, the addresses can be selected over the selection field „Radio module list“.
It can be helpful to create different Txt files for the different radio module types. Thus we recommend providing a list with all radio module addresses deposited in and additionally other lists, for 1-Channel, 2-Channel and 4-Channel modules. In many cases together with the radio modules also new meters are installed, so that usually the pulse rate and the meter reading are equal. To save time it is possible to parameterise a large number of radio modules in one step.

6.1.2 Parameterization of all radio modules in one step

When the list with radio modules is merged in module C, it is possible to make all necessary settings, such as number of channels, pulse rate, Data logger function, which are valid for all radio modules from this list with one click.

In order to send the changes to the radio module in the list, press the Button „INIT TRC list“.

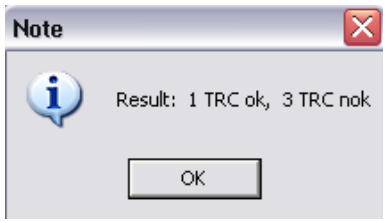


A reference field appear. By click on „Ja / Yes“, all the changes you adjusted in module C will apply for all radio modules in the list. If you select „Nein / No“, all parameters, except the number of channels, are programmed on the radio modules in the list.

The reference display window that appears after every successful parameterisation can be confirmed by a click on „OK“. This message appears only, if still no data base entry exists to the radio module.

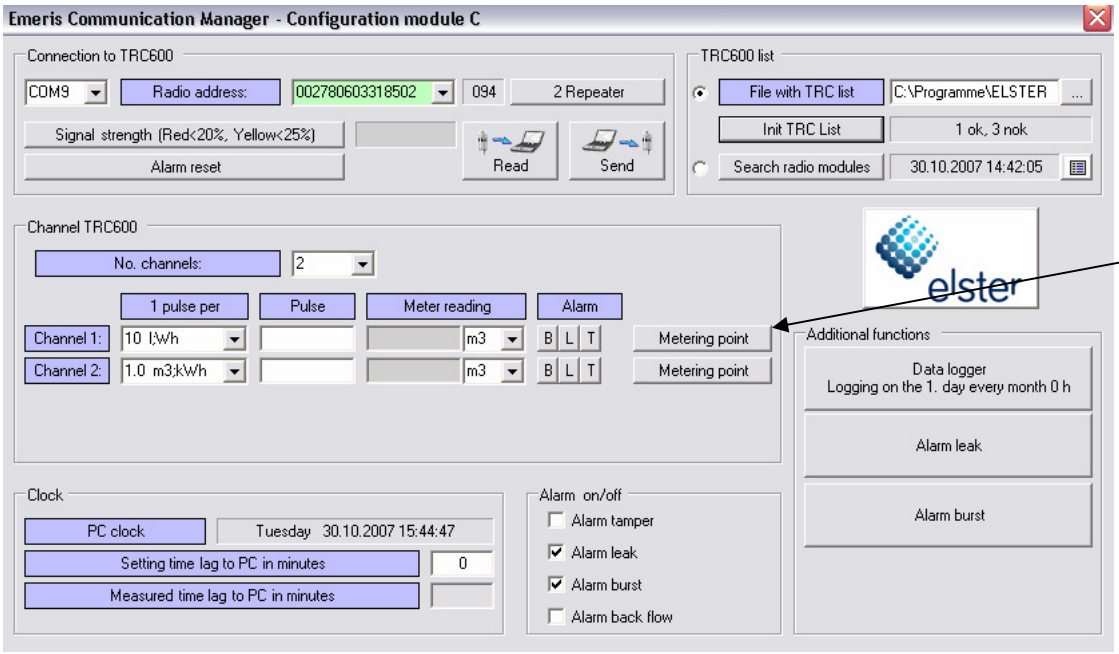
The “Status” text field informs about the current progress of the reprogramming. „Ok“means a successful programming of the radio module and „nok “a missed programming.

After the successful parameterisation a reference display window appears.

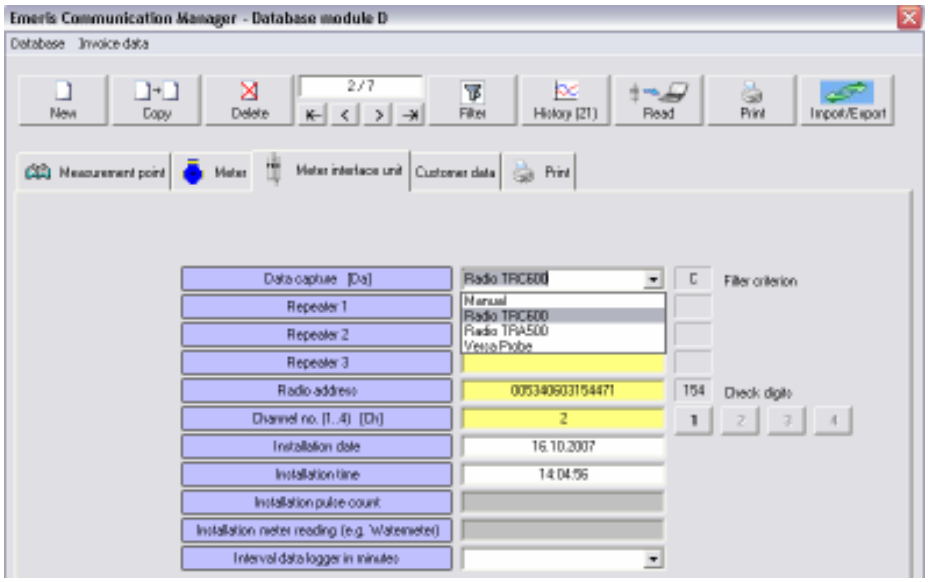


6.1.3 Create data base entry with radio module reference

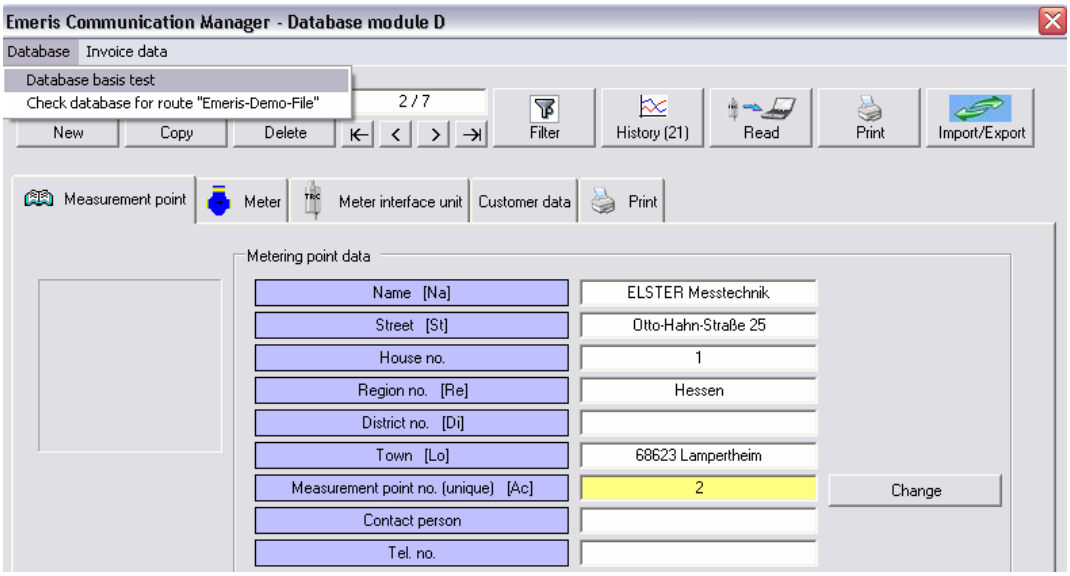
Now, that the radio modules are parameterised, directly open module D via the Button „Metering Point". Click for example on „Metering point" at channel 1, then the appropriate data record in module D is opened. Is the actual radio module not connected to a data base entry, the software automatically generates a new entry.



The advantage of this function is, that under the register „Meter interface unit" the "Data capture" selection field must just be set to „Radio TRC600" and the information like radio address, Channel No., installation date and installation time is automatically filled out. Also the pulse rate under the register "Meter" is imported from Module C.



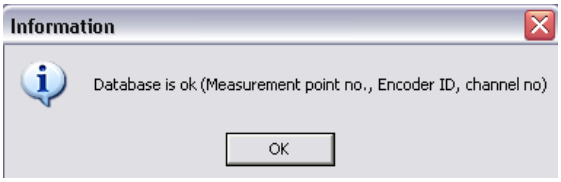
Note: In all 4 registers (Measurement point, Meter, Meter interface unit and Customer data) the yellow deposited obligation fields must be filled out. This is valid in particular for the entry „Measurement point No." under the register „Measurement point"!



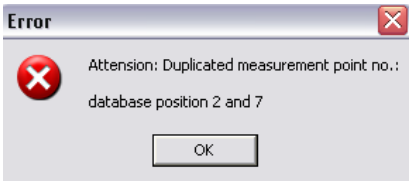
Concluding, the data base can be examined for plausibility over the entry Database → „Database basis test"

This function examines the entries Measurement point No., Radio address and Channel No. for clarity. An information window announces the plausibility of the data base
or indicates the wrong entries.

Correct



False



6.1.4 Local radio module read out

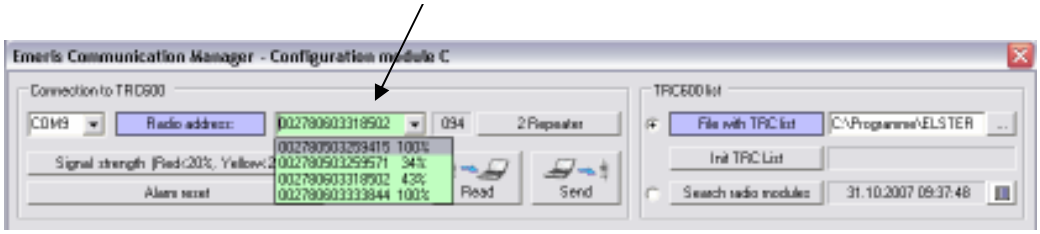
Now, that all measuring points in the data base are added and the radio modules are parameterised on the respective attached meter, the radio modules can be picked out now.
If you now read out, you receive on the one hand the current meter reading, if the data logger function is activated, it is also read out and on the other hand you get information of released alarms.

There are 3 possibilities to read out the radio modules at the measuring point.

1. Possibility via module C:

If the Txt file with the radio module addresses is selected, the radio address of the actual measurement point can be chosen. Afterwards press the Button „Read“. All channels of the radio module are read out and stored in the associated data base entries.

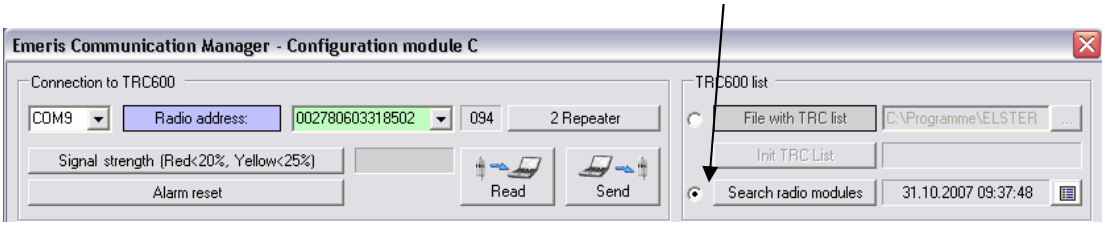
Select the radio module to read it



2. Possibility via module C:

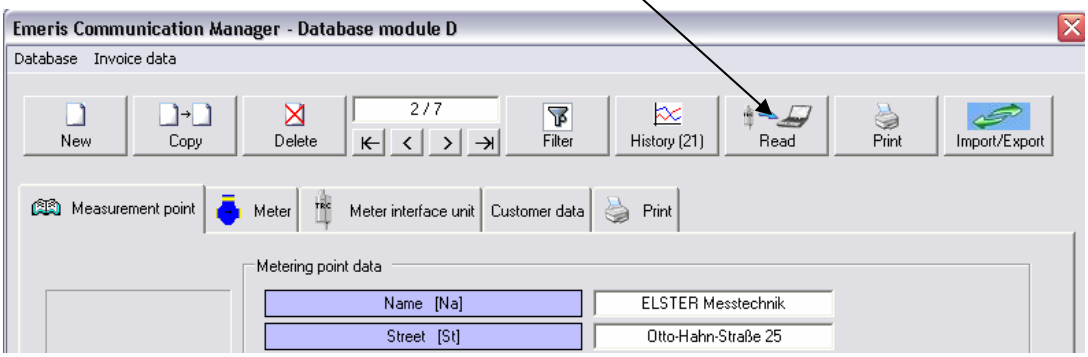
If the radio module address is not well-known or if several radio modules are in range, the modules can be found by pressing the Button „Search radio modules”. Subsequently, the modules can be chosen in the selection field. By pressing the button “Read” all channels of the radio module are read out. Repeat this for every module in the list.
After the last module the point at „File with TRC list“ can be set again. There again the radio module addresses of the selected Txt file are back in the selection list.

Via „Search radio modules“ all radio modules in range are acquired. and added to the address list



3. Possibility via module D:

In module D the measuring point in the data base, which can be read out, can be selected. Subsequently, you press the Button „Read“ and the radio module address is automatically inserted in Module C.



Now you only need to press a second time the Button “Read” in Module C and all channels of the radio module are read out and automatically stored in the database.